

UPVC VALVES & FITTINGS

Export Catalogue 2022-2023

Star
WATER TECHNOLOGY



fitvalf.com.tr

UPVC FITTINGS & VALVES

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“water technology”



About Us



Star Water Technology has moved to plastic injection moulding industry in 2003. In 2005, with the support of our parent company GEMAŞ GENEL MÜHENDİSLİK AŞ, company started to produce UPVC Pipe Fittings and Valves.



The following main factors play an important role in the selection of producing UPVC products;

- High strength and quality of UPVC raw material compared to other plastics
- In the global plastics industry, the number of companies that produce the same product group is relatively small compared to other plastic types
- Intensive use of UPVC high pressure fittings and valves in key sectors such as construction, agricultural irrigation and general plumbing

Our Izmir based company continues its activities with its internationally registered FITVALF brand which it has created and with its ever expanding product range.

Our company continues to grow rapidly in domestic and foreign markets with more than 200 employees, 6000 m² production, warehousing and office areas.

FITVALF, which certifies all production with ISO 9001-2000 Quality Management System, proved its high quality and innovative product concept with its patented ball valves. Our brand continues to receive ever-increasing shares in world markets with this innovative approach.



Technical Information



UPVC

UPVC (unplasticized polyvinylchloride) pipes and fittings exhibit excellent resistance to aggressive environments both naturally occurring and as a result of industrial activity. They are resistant to almost all types of corrosion, either chemical or electrochemical in nature. Since UPVC is a non-conductor, galvanic and electro chemical effects do not occur in UPVC pipes.

UPVC Pipes and fittings are often used in the following circumstances:

- For drinking water pipe distribution systems, both main and supply lines
- Sewer and discharge pipe systems

Due to its non-metallic nature, the material used is totally resistant to all forms of metallic corrosion. Aggressive water resulting from high sulphate soils and low hardness water will not attack UPVC pipes. Our pipes are therefore resistant to a wide range of industrial waters and chemicals and offer an advantage in long-term systems life and manufacture costs.

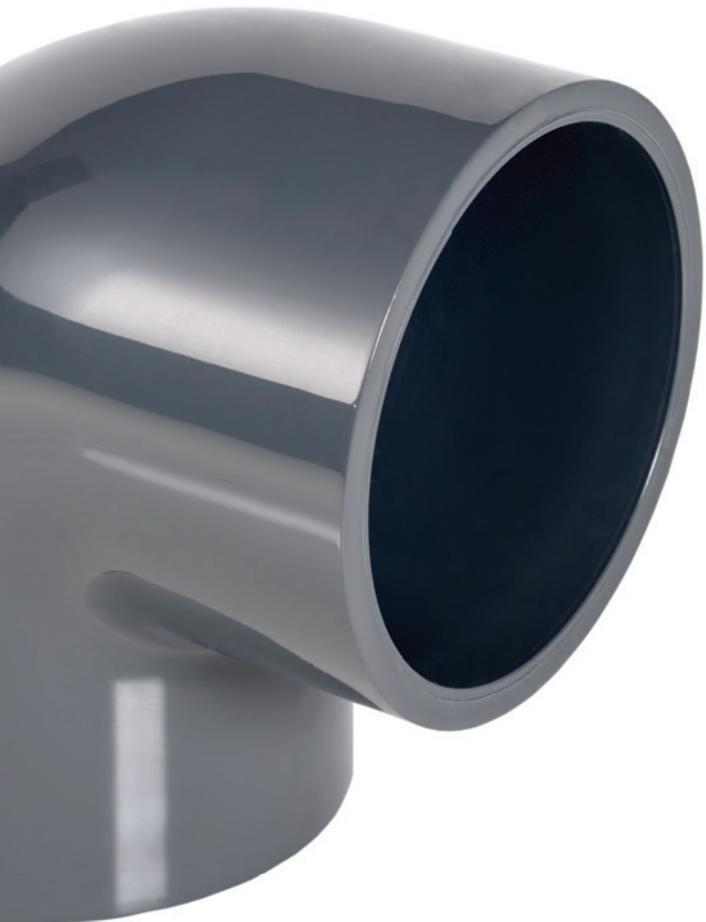
For more information on the resistance of UPVC for specific chemical(s), see page 12.

We inform you of the suitable pipe solution necessary. Being made of a tasteless and odorless material, UPVC pipes remain neutral to all transported fluids. UPVC is completely inert and is widely used for transporting liquids made for human consumption.

Because of their mirror-smooth inside surface, UPVC pipes have minimum flow head loss. There is also no buildup of inside deposits, a particular advantage in the construction of sewerage systems.

The physical properties of UPVC pipes are not affected by neither direct sunshine, nor wind or rain. However, to avoid surface browning due to long exposure to direct sunlight, it is recommended that the pipes are kept protected from direct sunlight. Rigid PVC is not conductive to combustion. In the event of a fire, flames are unable to travel on UPVC pipes. They therefore offer added safety when used for electrical installations, both domestic and industrial.

UPVC pipes are relatively light. Their specific weight 1.43 is one-fifth that of steel pipes. This cuts down transportation costs and facilitates installation when in difficult and remote places. Installation is quick and easy with a complete line of fittings either with the solvent glue weld sockets or the rubber seal socket joints. In either case, a leak-proof joint is assured. Subsequent maintenance work is also carried out with a minimum of complication and cost.



UPVC Pipes and Fittings Dimensions

The pipe industry maintains two different ways to refer to the dimension of a pipe.

One is the Nominal Dimension of the DN size.

This is commonly used for steel and iron pipes.

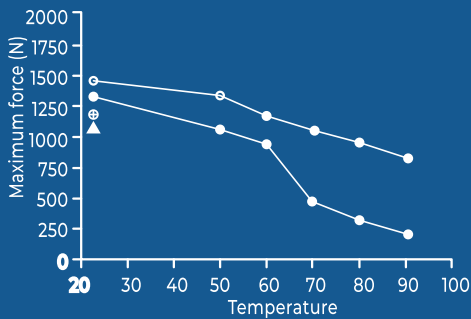
The plastic industry commonly uses the Outside Diameter or OD size.

Diameter Nominal DN (mm)	Nominal Pipe Size NPS (inches)	Outside Diameter OD (mm)	
6	1/8	10	
8	1/4	12	
10	3/8	16	
15	1/2	20	
20	3/4	25	
25	1	32	
32	1 1/4	40	
40	1 1/2	50	
50	2	63	
65	2 1/2	75	
80	3	90	
100	4	110	
125		125	
125		140	DIN
150	6	160	
150		180	GAS
200	8	200	
200		225	DIN
250	10	250	
250		280	DIN
300	12	315	
350	14	355	
400	16	400	
450	18	450	DIN
500	20	500	
500		560	DIN
600	24	630	
700	28	710	
800	32	800	
900	36	900	
1000	40	1000	
1100	44	1200	
1200	48	1200	
1400	56	1400	
1600	64	1600	
2000	80	2000	



General Properties of UPVC at 20 °C

Test	Unit	Value	Remark
Specify Gravity	-	1.42 - 1.43	Usually 1,43
Shore Hardness	Deg.	70 - 90	Equivalent to the hardness of Aluminum Varies with temperature
Tensile Strength	Kg/cm	500	
Bending Strength	Kg/cm	950	Varies with temperature
Modulus of Elasticity	Kg/cm	3.2 x 10	
Impact Strength Izod	Jaules	4.7 - 5,4	
Water Absorption	Mg/cm	1,05	
Elongation at Break	-	>80%	
Softening Point (V.S.P) 5 KG	°C	80	
Fabricating Temperature	°C	110-140	
Co-efficient of Linear Expansion at 70°C	Mm/m°C	0.08	
Specific Heat	Kcal/Kg°C	0.025	
Heat Reversion	-	< 2,5%	
Specific Volume Resistivity	Ohm/cm	> 3-5 x 10	UPVC is non-conductor of electricity and is not subject to galvanic or electrolytic attack
Dielectric Strength	KV/mm	>40	Electrical equipment must not be earthed to uPVC pipes

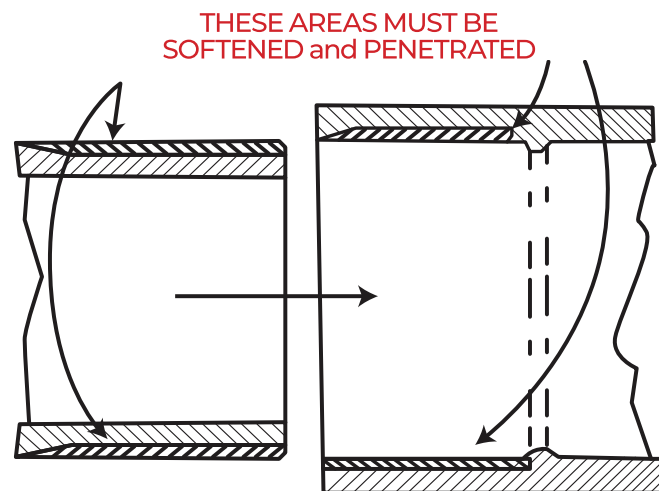


Relationship between tensile strength and temperature

Solvent Welding Guide

To make consistently good joints, the following points should be clearly understood.

1. The joining surfaces must be softened and made semifluid.
2. Sufficient cement must be applied to fill gap between pipe and fitting.
3. Assembly of pipe and fittings must be made while the surfaces are still wet and cement is still fluid.
4. Joint strength develops as the cement dries. In the tight part of the joint, the surfaces will tend to fuse together; in the loose part, the cement will bond to both surfaces.



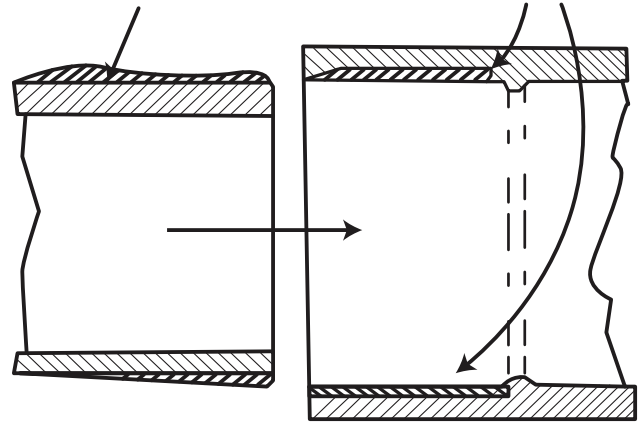
Penetration and softening can be achieved by the cement itself, by using a suitable primer or by the use of both primer and cement. For certain materials and in certain situations, it is necessary to use a primer. A suitable primer will usually penetrate and soften the surfaces more quickly than cement alone. Additionally, the use of a primer can provide a safety factor for the installer, for he can know under various temperature conditions when sufficient softening has been achieved. For example, in cold weather more time and additional applications may be required.

Sufficient cement to fill the loose part of the joint must be applied. Besides filling the gap adequate cement layers will penetrate the surfaces and also remain wet until the joint is assembled. Prove this for yourself. Apply on the top surface of a piece of pipe two separate layers of cement.

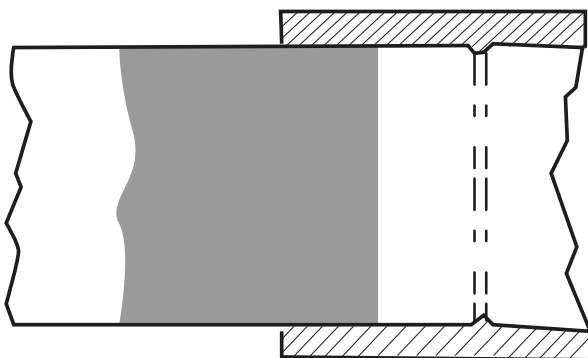
First apply a heavy layer of cement; then alongside it, apply a thin brushed out layer. Test the layers every 15 seconds or so by a gentle tap with your finger. You will note that the thin layer becomes tacky and then dries quickly (probably within 15 seconds); the heavy layer will remain wet much longer. A few minutes after applying these layers check for penetration. Scrape the surface of both with a knife. The thin layer will have achieved little or no penetration; the heavy one will have achieved much more penetration. If the cement coatings on the pipe and fittings are wet and fluid when assembly takes place, they will tend to flow together and become one cement layer.

Also, if the cement is wet, the surfaces beneath them will still be soft and these softened surfaces in the tight part of the joint will tend to fuse together. As the solvent dissipates, the cement layer and the softened surfaces will harden with a corresponding increase in joint strength. A good joint will take the required working pressure long before the joint is fully dry and final joint strength is obtained. In the tight(fused) part of the joint, strength will develop more quickly than in the looser(bonded) part of the joint.

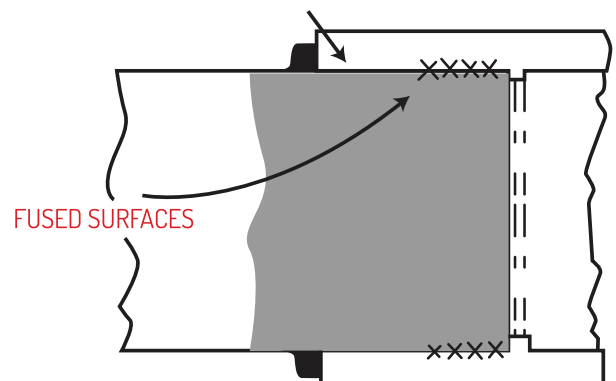
CEMENT COATINGS OF SUFFICIENT THICKNESS



SURFACES MUST BE ASSEMBLED WHILE THEY ARE WET AND SOFT



BONDED SURFACES



Technical Information

Solvent Weld jointing of large diameter pipes require special care and our Technical Service Department should be contacted in case of difficulty. Always replace the lid of the can after making a joint and follow the instructions on the can observing any warnings.

Joints should not be moved or disturbed for 10-15 minutes then the jointed pipe may be handled with care. Allow 4 hours if the jointed pipe lengths are to be laid in a trench.

Allow 8 hours to elapse before applying working pressures or 24 hours for test pressures. With pipe sizes up to 50mm, it is possible to reduce this time. Allow 1 hour for each 3.5 atmospheres of pressure. Brushes must be clean and dry before commencing solvent welding. Brushes must be thoroughly cleaned after use by washing in cleaning fluid. Do not dilute solvent adhesive with cleaning fluid. Use Solvent adhesive and cleaning fluid in a well-ventilated area. Keep away from naked flames and do not smoke. Always replace lids of containers. In any event, attention is drawn to the instructions printed on the containers.

When laying continuous runs of pipe, joints may be made quicker than the setting times advised above. The joint will not be disturbed with long lengths, providing that the pipe is not twisted or the previously made joint lifted out of place.

I Rubber Ring Joints

Ensure that the spigot and socket are free from dust, grit, grease and as dry as possible. Insert pipe into the socket without seal ring in place and mark pipe when it is fully inserted. Place seal in groove of socket ensuring that seal is correct way round. Anger seal rings should be fitted with tapered section facing the outside of the socket.

Apply jointing lubricant to the chamfer and the end of the spigot of the pipe or fitting only. Push the pipe firmly into the socket up to the insertion mark previously made. If an expansion gap is required the pipe is then pulled back by the desired amount.

I Storage and Handling

Unplasticized UPVC pipes are strong yet light, their specific gravity being approximately one-fifth of Cast Iron. As a result, these pipes are more easily handled than their metal counterparts. Reasonable care, however, should be used at all times. Since the soundness of any joint depends on the condition of the spigot and the socket, special care must be taken in transit, handling and storage to avoid damage to the ends.

When loading pipes on to vehicles, care must be taken to avoid their coming into contact with any sharp corners such as cope irons, loose nail-heads, etc., as pipes may be damaged by being rubbed against these during transit.

Whilst in transit, pipes shall be well secured over their entire length and not allowed to project unsecured over the tailboard of the lorry.

When off-loading, pipes should be lowered, not dropped to the ground. Pipes may be off-loaded from lorries by rolling them gently down timbers, care being taken to ensure that pipes do not fall one upon another, nor on to any hard or uneven surfaces.

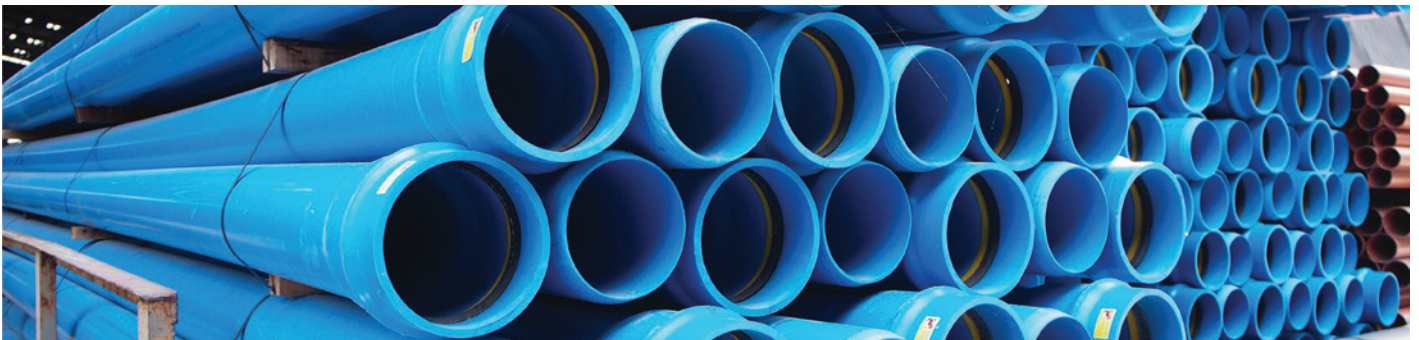


Pipe Transport



Pipe Loading

Pipes should be given adequate support at all times. Pipes should not be stacked in large piles, especially in warm temperature conditions, as the lower layers may distort, resulting in difficulties in jointing and pipe alignment. Any pipe with ends prepared for jointing (Socket and spigot joints, 'A' joints, etc.) should be stacked in layers with sockets placed at alternate ends of the stack and with the sockets protruding to avoid unstable stacks and the possibility of imparting a permanent set to the pipes.



Pipe Stocking

For long-term storage, pipe racks should provide continuous support. For pipe sizes 160mm and above timber of at least 3in. (75mm) bearing width at spacing's not greater than 3ft. (915mm), should be placed beneath the pipes. Side support should be placed at 6ft. (1.8m), if the stacks are rectangular. Closer supports will be required for sizes below 160mm. In such pipe racks, pipes may be stored not more than seven layers, or 6ft. (1.8m) high, whichever is the lesser, but if different classes of pipe are kept in the same racks, then the thickest classes of largest diameter must always be placed at the bottom.



Longterm Pipe Storage

UPVC Chemical Resistance Chart

Three different classes of chemical resistance degree are conventionally used in this guide ie:

Class 1: HIGH RESISTANCE (corrosion-proof) - all materials belonging to this class are completely or almost completely corrosion-proof against the conveyed fluid, according to the specified operating conditions.

Class 2: LIMITED RESISTANCE - the materials belonging to this class are partially attacked by the conveyed chemical compound. The average life of the material is therefore shorter, and it is advisable to use a higher safety factor by selecting a higher SN rating pipe.

Class 3: NO RESISTANCE - all material belonging to this class are subject to corrosion by the conveyed fluid and they should therefore not be used.

The absence of any class indication means that no data are available concerning the chemical resistance of the material in respect of the conveyed fluid.

ABBREVIATIONS

sat = saturated solution at 20°C, nd = undefined concentration,

deb = weak concentration, comm = commercial solution. dil = diluted solution

	FORMULA	CONC %	TEMP (°C)	PVC	PE		FORMULA	CONC %	TEMP (°C)	PVC	PE
ACETALDEHYDE	CH ₃ CHO	100	25 60	3 3	1	- FLUORIDE	NH ₄ F	25	25 60	1 2	1 1
- AQUEOUS SOLUTION		40	25	3	1	- HYDROXIDE	NH ₄ OH	28	25 60	- 2	1 1
ACETIC ACID	CH ₃ COOH	≤ 25	25 60	1 2	1 1	- NITRATE	NH ₄ NO ₃	sat	25 60	1 1	1 1
		30	25	1	1	- PHOSPHATE DIBASIC	NH ₄ (HPO ₄) ₂	all	25 60	1 1	1 1
		60	25	2	1	- PHOSPHAT META	(NH ₄) ₄ P ₄ O ₁₂	all	25 60	1 1	
		80	25	1	1	- PHOSPHATE TRI	(NH ₄) ₂ HPO ₄	all	25 60	1 1	
- GLACIAL		100	25 60	2 3	1 2	- PERSULFATE	(NH ₄) ₂ S ₂ O ₈	all	25 60	1 1	
ACETIC ANHYDRIDE	(CH ₃ CO) ₂ O	100	25 60	3 3	2 2	- SULFIDE	(NH ₄) ₂ S	deb sat	25 25 60	1 1 1	1 1 1
ACETONE (DIMETHYL KETONE)	CH ₃ COCH ₃	10 100	25 60 25 60	3 3 3 3	1 1 2 2	- SULFHYDRATE	NH ₄ OHSO ₄	dil sat	25 60 25 60	1 2 1 1	1 1 1 1
ACETOPHENONE (ACETYL BENZENE OR PHENYL METHYL KETONE)	CH ₃ COC ₆ H ₅	nd	25 60			AMYLACETATE (PENTYL ACETATE)	CH ₃ CO ₂ CH ₂ (CH ₂) ₃ CH ₃	100	25 60	3 3	1 2
ACRYLONITRILE (ACRYLONITRILE OR VINYL CYANIDE)	CH ₂ CHCN	technically pure	25 60	3 3	1 1	AMYLALCOHOL	CH ₃ (CH ₂) ₃ CH ₂ OH	nd	25 60	1 1	1 1
ADIPIC ACID AQUEOUS SOLUTION	(CH ₂ CH ₂ CO ₂ H) ₂	sat.	25 60	1 2	1 1	ALNILINE (PHENYLAMINE OR AMINOBENZENE) - CHLORHYDRATE (ANILINE HYDROCHLORIDE)	C ₆ H ₅ HN ₂ CH ₆ H ₅ NH ₂ HCl	all nd	25 25 60	3 2 3	2 2 2
ALLYL ALCOHOL	CH ₂ CHCH ₂ OH	96	25 60	2 3	1 2	ANTIMONY - TRICHLORIDE	SbCl ₃	100	25 60	1 1	1 1
ALUM AQUEOUS SOLUTION (POTASH ALUM.SOL.)	Al ₂ (SO ₄) ₃ K ₂ SO ₄ nH ₂ O	dil dil sat.	25 60 60	1 2 2	1 1 1	ANTHRAQUINONE (SULFONIC ACID)	suspension	25	1 60	1 2	1 -
ALUMINIUM - CHLORIDE - FLORIDE	AlCl ₃	all	25 60	1 1	1 1	AQUA REGIA	HCl+HNO ₃	100	25 60	2 2	3 3
- HYDROXIDE	Al(OH) ₃	all	25 60	1 1	-	ARSENIC ACID	H ₃ ASO ₄	deb 80	25 60 25 60	1 2 1 2	1 1 1 1
NITRATE	Al(NO ₂) ₃	nd	25 60	1 1	-	BARIUM CARBONATE - CHLORIDE	BACO ₃ BaCl ₂	all 10	25 60 25 60	1 1 1 1	1 1 1 1
SULFATE	Al(SO ₄) ₃	deb sat	25 60 25 60	1 1 1 1	1 1	- HYDROXIDE	Ba(OH) ₂	all	25 60	1 1	1 1
AMMONIA - AQUEOUS SOLUTION	NH ₃	deb sat	25 60 25 60	1 2 1 2	1 1	- SULFATE	BaSO ₄	nb	25 60	1 1	1 1
- DRY GAS		100	25 60	1 1	1 1	- SULFIDE	BaS	sat	25 60	1 1	
- LIQUID		100	25 60	2 3	1 1	BEER		comm	25 60	1 1	1 1
AMMONIUM - ACETATE - CARBONATE	CH ₃ COONH ₄ (NH ₄) ₂ CO ₃	sat all	25 60 25 60	- 2 1 2	1 1 1 1	BENZALDEHYDE	C ₆ H ₅ CHO	nd	25 60	3 3	2 2

Technical Information

	FORMULA	CONC %	TEMP (°C)	PVC	PE		FORMULA	CONC %	TEMP (°C)	PVC	PE		
DIOCTYLPHTHALATE		all	25 60	3 3	1 2	HYDROCHLORIC ACID (MURIATIC ACID)	HCl	≤25	25 60	1 2	1 1		
DISTILLED WATER		100	25 60	1 1	1 1			≤ 37	25 60	1 1	1 2		
DRINKING WATER		100	25 60	1 1	1 1	HYDROCYANIC ACID (PRUSSIC ACID OR HYDROGEN CYANIDE)	HCN	deb	25 60	1 1	1 1		
ETHERS		all	25 60	3 3					HYDROFLUORIC ACID	HF	10	25 60	1 2
ETHYL - ACETATE (ACETIC ETHER)	CH ₃ CO ₂ C ₂ H ₅	100	25 60	3 3	1 3	HYDROGEN	H ₂	all	25 60				
- ALCOHOL	CH ₃ CH ₂ OH	nd	25 60	1 2	1 2	HYDROGEN - PEROXIDE (BLEACH)	H ₂ O ₂	30	25 60	1 1	1 1		
(ETHANOL)	CH ₃ CH ₂ Cl	all	25 60	3 3	2				25 60	1 1	2	2	
- CHLORIDE									50	25 60	1 1	2 -	
- ETHER	CH ₃ CH ₂ OCH ₂ CH ₃	all	25 60	3 3					- SULFIDE DRY		sat	25 60	1 2
ETHYLENE - CHLOROHYDRIN - GLYCOL (ETHANEDIOL OR GLYCOL)	CICH ₂ CH ₂ OH	100	25 60	3 3		- SULFIDE WET		sat	25 60	1 2	1 1		
	HOCH ₂ CH ₂ OH	comm	25 60	1 1	1 3	HYDROSUPHITE		≤10	25 60	1 2			
FATTY ACIDS		nd	25 60	1 1		HYDROXYLAMINE SULPHATE	(H ₂ NOH) ₂ H ₂ SO ₄	12	25 60	1 1	1 1		
FERRIC - CHLORIDE	FeCl ₃	10	25 60	1 2		ILLUMINATING GAS		100	25 60	1 1	1 1		
		sat	25 60	1 1	1 1	IODINE - DRY AND WET - TINCTURE	I ₂	3	25 60	2 3			
- NITRATE	Fe(NO ₃) ₃	nd	25 60	1 1	1 1				25 60	2 3	2 3		
- DEXTRINE (BRITISH GUM OR STARCH GUM)	C ₆ H ₁₂ OCH ₂ O	nd	25 60	1 2	1 1				25 60	1 1	2		
- SULFATE	Fe(SO ₄) ₃	nd	25 60	1 1	1 1	ISOCTANE	C ₈ H ₁₈	100	25 60	1	2		
FERROUS - CHLORIDE - SULFATE	FeCl ₂	sat	25 60	1 1	1 1	ISO-OCTANE	(CH ₃) ₃ CCH ₂ (CH ₃) ₂						
	FeSO ₄	nd	25 60	1 1	1 1	ISOPROPYL -ETHER	(CH ₃) ₂ CHOCH(CH ₃) ₂	100	25 60	2 3	2 3		
						- ALCOHOL (ISOPROPANOL)	(CH ₃) ₂ CHOH	100	25 60				
FERTILIZER		≤ 10	25 60	1 1	1 1	LACTIC ACID	CH ₃ COHCOOH	≤28	25 60	1 2	1 1		
		sat	25 60	1 1	1 1	LANOLINE		nd	25 60	1 2	1 1		
FLUORINE GAS DRY	F ₂	100	25 60	2 3	2 3	LEAD ACETATE	Pb(CH ₃ COO) ₂	sat	25 60	1 1	1 -		
FLUROSILICIC ACID	H ₂ SiF ₆	32	25 60	1 1	1 1	LINSEED OIL		comm	25 60	1 2	2 2		
FORMALDEHYDE	HCOH	-	25 60	1 2	1 1	LUBRICATING OILS		comm	25 60	1 1	3		
FORMIC ACID	HCOOH	50	25 60	1 2	1 1	MAGNESIUM - CARBONATE - CHLORIDE - HYDROXIDE -NITRATE - SULFATE	MgCO ₃	all	25 60	1 1			
		100	25 60	1 3	1 1			MgCl ₂	sat	25 60	1 1	1 1	
FRUIT PULP AND JUICE		comm	25 60	1 1	1 1			Mg(OH) ₂	all	25 60	1 1		
FUEL OIL		100	25 60	1 1				MgNO ₃	nd	25 60	1 1	1 1	
		comm	25 60	1 1	- 2	MgSO ₄	dil	25 60	1 1	1 1	1 1		
FURFUROLE ALCOHOL	C ₅ H ₃ OCH ₂ OH	nd	25 60	3 3	2 2	MALEIC ACID	COOHCHCHCOOH	nd	25 60	1 1	1 1		
GAS EXHAUST - ACID		all	25 60	1 1		MALIC ACID (HYDROXYSUCCINIC ACID)	CH ₂ CHOH(COOH) ₂	nd	25 60	1 -	1 -		
- WITH NITROUS - VAPOURS		traces 60	25 1	1 1	1 1	MERCURIC HgCl ₂		sat	25 60	1 1	1 1		
GAS PHOSGENE	ClCOCl	100	25 60	1 2	2 2	- CHLORIDE			25 60	1 1	1 1		
GELATINE		100	25 60	1 1	1 -	- CYANIDE	HgCN ₂	all	25 60	1 1			
GLUCOSE (DEXTROSE)	C ₆ H ₁₂ O ₆	all	25 60	1 2	1 1	MERCUROUS NITRATE	HgNO ₃	nd	25 60	1 1	1 1		
GLYCERINE AQ.SOL.(GLYCEROL)	HOCH ₂ CHOHCH ₂ OH	all	25 60	1 1	1 1	MERCURY	Hg	100	25 60	1 2	1 1		
GLYCOGLUE AQUEOUS		10	25 60	1 1	1 1	METHYL - ACETATE - ALCOHOL (METHANOL OR WOODSPIRIT) - BROMIDE (BROMOMETHANE) - CHORIDE (CHLOROMETHANE) - ETHYLKETONE	CH ₃ COOCH ₃	100	25 60	- -	- -		
GLYCOLIC ACID	HOCH ₂ COOH	37	25 60	1 1	1 1			CH ₃ OH	nd	25 60	1 1	1 1	
HEPTANE	C ₇ H ₁₆	100	25 60	1 2	1 3			CH ₃ Br	100	25 60	3 3	3 3	
HEXANE	C ₆ H ₁₄	100	25 60	1 2	1 2			CH ₃ Cl	100	25 60	3 3	1 1	
HYDROBROMIC ACID	HBr	≤10	25 60	1 2	1 1			CH ₃ COCH ₂ CH ₃	all	25 60	3 3	1 2	
		48	25 60	1 2	1 1	METHYLAMINE	CH ₃ NH ₂	32	25 60	2 3	1 2		

Technical Information

	FORMULA	CONC %	TEMP (°C)	PVC	PE		FORMULA	CONC %	TEMP (°C)	PVC	PE
BENZENE (BENZOL)	C ₆ H ₆	100	25 60	3 3	3	CHLORAMINE	NH ₂ Cl	dil	25 60	1 1	1
- + LIGROIN		20/80	25 60	3 3		CHLORIC ACID	HClO ₃	20	25 60	1 2	1 3
- MONOCHLORINE	C ₆ H ₅ Cl	technically pure	25 60	3	2	CHLORINE	Cl ₂	sat	25 60	2 3	
BENZOIC ACID	C ₆ H ₅ COOH	sat	25 60	1 2	1 1	- DRY GAS		10 100	25 60 25 60	1 2 2 3	
BENZYL ALCOHOL	C ₆ H ₅ CH ₂ OH	100	25 60	1 2		- WET GAS		5 g/m3 10 g/m3 66 g/m3	25 60 25 60 25 60	1 3 2 2 2 2	
BORIC ACID (BORACIC ACID)	H ₃ BO ₃	deb sat	25 60 25 60	1 2 1 2	1 1 1 1	- LIQUID		100	25 60	3 3	3
BRINE		comm	25 60	1 1		CHLOROACETIC ACID	ClCH ₂ COH	85 100	25 60 25 60	1 2 1 3	2 3 3 3
BROMIC ACID	HBrO ₃	10	25 60	1 1	1 1	CHLOROBENZENE	C ₆ H ₅ Cl	all	25 60	3 3	
BROMINE - LIQUID - VAPOURS	Br ₂	100	25 60	3 3	3 3	CHLOROFORM	CHCl ₃	all	25 60	3 3	2
BUTADIENE	C ₄ H ₆	100	25 60	1 1	3	CHLOROSULPHONIC ACID	ClHSO ₃	100	25 60	2 3	3 3
BUTANEDIOL AQUEOUS	CH ₃ CH ₂ CHOHCH ₂ OH	10 concentrated	25 60 25 60	1 3 2 3	2 2 3 3	CHROME ALUM	KCr(SO ₄) ₂	nd	25 60	1 2	1 1
BUTANE GAS	C ₄ H ₁₀	10	25 60	1 1	1 1	CHROMIC ACID	CrO ₃ +H ₂ O	10 30 50	25 60 25 60 25 60	1 2 1 2 1 2 3	2 3 2 3 2 3
BUTYL - ACETATE (BUTANATE) - ALCOHOL (BUTANOL)	CH ₃ CO ₂ CH ₂ CH ₂ CH ₂ CH ₃	100	25 60	3 3	3 3	CHROMIC SOLUTION	CrO ₃ +H ₂ O+H ₂ SO ₄	50/35/15	25 60	1 2	3 3
- PHENOL	C ₄ H ₉ OH		25 60	1 2	1 1	CITRIC ACID AQUEOUS SOLUTION	C ₃ H ₄ (OH)(CO ₂ H) ₃	50	25 60	1 1	1 1
BUTYLENE GLYCOL	C ₄ H ₆ (OH) ₂	100	25 60	2 2	1 1	COPPER - CHLORIDE	CuCl ₂	sat	25 60	1 1	1 1
BUTYRIC ACID (BUTANOIC ACID)	C ₂ H ₅ CH ₂ COOH	20 concentrated	25 60 25 60	1 2 3 3	1 2 3 3	- CYANIDE	CuCN ₂	all	25 60	3 3	
CALCIUM - BISULFITE	Ca(HSO ₃) ₂	nd	25 60	1 1	1 1	- FLUORIDE	CuF ₂	all	25 60	1 1	1 1
- CARBONATE	CaCO ₃	all	25 60	1 1	1 1	- NITRATE	Cu(NO ₃) ₂	nd	25 60	1 2	1 1
- CHLORATE	CaHCl	nd	25 60	1 1	1 1	- SULFATE	CuSO ₄	dil sat	25 60 25 60	1 1 1 1	1 1 1 1
- CHLORIDE	CaCl ₂	all	25 60	1 2	1 1	COTTONSEED OIL		comm	25 60	1 1	
- HYDROXIDE	Ca(OH) ₂	all	25 60	1 1		CRESOL (HYDROXY TOLUENE)	CH ₃ C ₆ H ₄ OH	≤90 ≥90	25 60 25 60	2 3 3	1
- HYPOCHLORITE	Ca(OH)Cl	sat	25 60	2 2	1 1	CRESYLIC ACID	CH ₃ CH ₆ H ₄ COOH	50	25 60	2 3	
- NITRATE	Ca(NO ₃) ₂	50	25 60	1 1	1 1	CYCLOHEXANE	C ₆ H ₁₂	all	25 60	3 3	1
- SULFATE	CaSO ₄	nd	25 60	1 1	1 1	CYCLOHEXANONE	C ₆ H ₁₀ O	all	25 60	3 3	1
- SULFIDE	CaS	sat	25 60	1 1	2 2	DECAHYDRONAFTALENE	C ₁₀ H ₁₈	nd	25 60	1 1	1 2
CAMPHOR OIL		nd	25 60	1 1	3 3	DEMINEALIZED WATER		100	25 60	1 1	1 1
CARBON - DIOXIDE AQUEOUS SOLUTION	CO ₂	-	25 60	1 2	1 1	DIBUTYPATHALATE	C ₆ H ₄ (CO ₂ C ₄ H ₉) ₂	100	25 60	3 3	3 3
- GAS		100	25 60	1 1	1 1	DICHLORO-ACETIC ACID	Cl ₂ CHCOOH	100	25 60	1 2	1 2
- DISULFIDE	CS ₂	100	25 60	2 3	2	DICHLOROETHANE (ETHYLENE DICHLORIDE)	CH ₂ ClCH ₂ Cl	100	25 60	3 3	3 3
- MONOXIDE	CO	100	25 60	1 1	1 1	DICHLOROETHYLENE	Cl(CH ₂) ₂ Cl	100	25 60	3 3	3 3
- TETRACHLORIDE	CCl ₄	100	25 60	2 3	2 3	DIETHYL ETHER	C ₂ H ₅ OC ₂ H ₅	100	25 60	3 3	3 3
CARBONIC ACID - AQUEOUS SOLUTION	H ₂ CO ₃	sat	25 60	1 1		DIGLYCOLIC ACID	(CH ₂) ₂ O(CO ₂ H) ₂	18	25 60	1 2	1 1
- DRY		100	25 60	1 1		DIMETHYLAMINE	(CH ₃) ₂ NH	100	25 60	2 3	2 2
- WET		all	25 60	1 2							
CARBON OIL		comm	25 60	1 1							

Technical Information

	FORMULA	CONC %	TEMP (°C)	PVC	PE		FORMULA	CONC %	TEMP (°C)	PVC	PE
- BICARBONATE (SODIUM HYDROGEN CARBONATE)	NaHCO ₃	nd 60	25 1	1 1	1	- FUMING (OLEUM)		60	3	2	
- BISULFITE	NaHSO ₃	100	25 60	1 1	1			all	25 60	2 3	
- BROMIDE	NaBr	sat	25 60	1 1		- NITRIC AQUEOUS SOLUTION	H ₂ SO ₄ +HNO ₃ +H ₂ O	48/49/3 50/50/0 10/20/70	25 60 25 60	1 2 2 3 1 2	3 3 3 2
- CARBONATE	Na ₂ CO ₃	sat	25 60	1 1	1	TALLOW EMULSION		comm	25 60	1 1	1 2
- CHLORATE	NaClO ₃	nd	25 60	1 2	1 1	TANNIC ACID	C ₁₄ H ₁₀ O ₉	10	25 60	1 1	1 1
- CHLORIDE	NaCl	dil sat	25 60 25 60	1 2 1 1	1 1	TARTARIC ACID	HOOC(CHOH) ₂ COOH	all	25 60	1 2	1 1
- CYANIDE	NaCN	all	25 60	1 1		TETRACHLORO - ETHANE	CHCl ₂ CHCl ₂	nd	25 60	3 3	2 3
- FERROCYANIDE	Na ₄ Fe(CN) ₆	sat	25 60	1 1	1	- ETHYLENE (PERCHLOROETHYLENE)	CCl ₂ CCl ₂	nd	25 60	3 3	2 3
- FLUORIDE	NaF	all	25 60	1 1	1	TETRAETHYLLEAD	Pb(C ₂ H ₅) ₄	100	25 60	1 2	1 1
- HYDROXIDE	NaOH	60	25 60	1 1	1	TETRAHYDROFURAN	C ₄ H ₈ O	all	25 60	3 3	2 3
- HYPOCHLORITE	NaOCl	deb	25 60	1 2	1	THIONYL CHLORIDE	SOCl ₂	-	25 60	3 3	3
- HYPOSULFITE	Na ₂ S ₃ O ₃	nd	25 60	1 1		THIOPHENE	C ₄ H ₄ S	100	25 60	3 3	2 2
- NITRATE	NaNO ₃	nd	25 60	1 1	1	TOLUENE	C ₆ H ₅ CH ₃	100	25 60	3 3	2 3
- PERBORATE	NaBO ₃ H ₂ O	all	25 60	1 1		TRANSFORMER OIL		nd	25 60	1 2	1 2
- PHOSPHATE di	Na ₂ HPO ₄	all	25 60	1 1		TRICHLORO- ACETIC ACID	CCl ₃ COOH	≤50	25 60	1 3	1 2
- PHOSPHATE tri	Na ₃ PO ₄	all	25 60	1 1	1	TRICHLOROETHYLENE	Cl ₂ CCHCl	100	25 60	3 3	2 2
- SULPHATE	Na ₂ SO ₄	dil sat	25 60 25 60	1 1 1 1		TRIETHANOLAMINE	N(CH ₂ CH ₂ OH) ₂	100	25 60	2 3	1
- SULFIDE	Na ₂ S	dil	25 60	1 2	1	TURPENTINE		100	25 60	2 2	2 3
- SULFITE	NaSO ₃	sat	25 60	1 1		UREA AQUEOUS SOLUTION	CO(NH ₂) ₂	≤ 10 33	25 60 25 60	1 2 1 2	1 1 1 1
STANNIC CHLORIDE	SnCl ₄	sat	25 60	1 1	1	URINE		nd	25 60	1 2	1 1
STANNOUS CHLORIDE	SnCl ₂	dil	25 60	1 1	1	URIC ACID	C ₅ H ₄ N ₄ O ₃	10	25 60	1 2	1
STEARIC ACID	CH ₃ (CH ₂) ₁₆ CO ₂ H	100	25 60	1 1	2	VASELINE OIL		100	25 60	1 3	1 2
SUGAR SYRUP		high	25 60	1 2	1	VINYL ACETATE	CH ₃ CO ₂ CHCH ₂	100	25 60	3 3	
SULPHUR	S	100	25 60	1 2		WHISKEY		comm	25 60	1 1	
- DIOXIDE AQUEOUS	SO ₂	sat	25 60	1 2	1	WINES		comm	25 60	1 1	1
- DIOXIDE DRY		all	25 60	1 1	1	WINE VINEGAR		comm	25 60	1 2	1 1
- DIOXIDE LIQUID		100	25 60	2 3	1 2	ZINC - CHLORIDE	ZnCl ₂	dil sat	25 60 25 60	1 1 1 1	1 1 1 1
- TRIOXIDE	SO ₃	100	25 60	2 2	3 3	- CHROMATE	ZnCrO ₄	all	25 60	1 1	
SULPHURIC ACID	H ₂ SO ₄	≤ 10 ≤75 ≤90 ≤96	25 60 25 60 25 60 25	1 1 1 2 2 2 2	1 1 2 2 2 2	- CYANIDE	Zn(CN) ₂	all	25 60	1	
						- NITRATE	Zn(NO ₃) ₂	nd	25 60	1 1	
						- SULFATE	ZnSO ₄	dil sat	25 60 25 60	1 1 1 1	1 1 1 1

UPVC Valves



Ball Valve

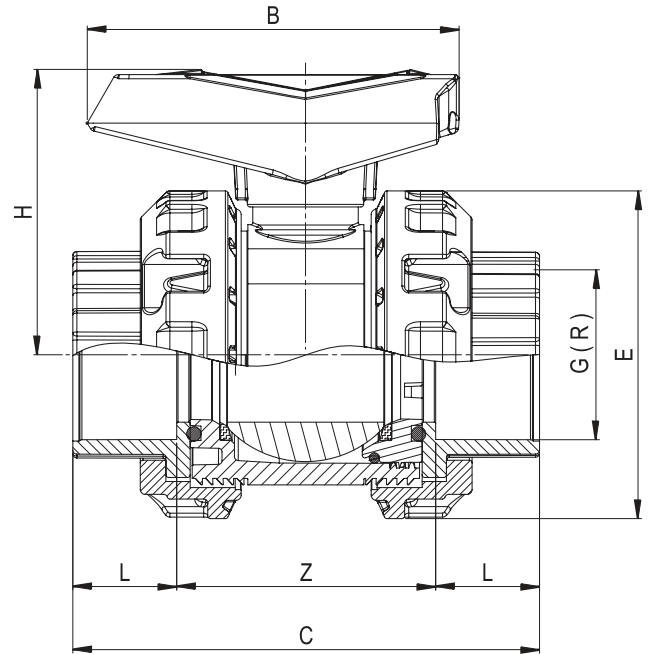
Patented Product



Adjustable ball pressure as well as patented union screwing with handle.

Teflon seats.

EPDM o-rings. PN16.



Available in 2 models

- Slip Connection
- Threaded Connection

Slip Connection

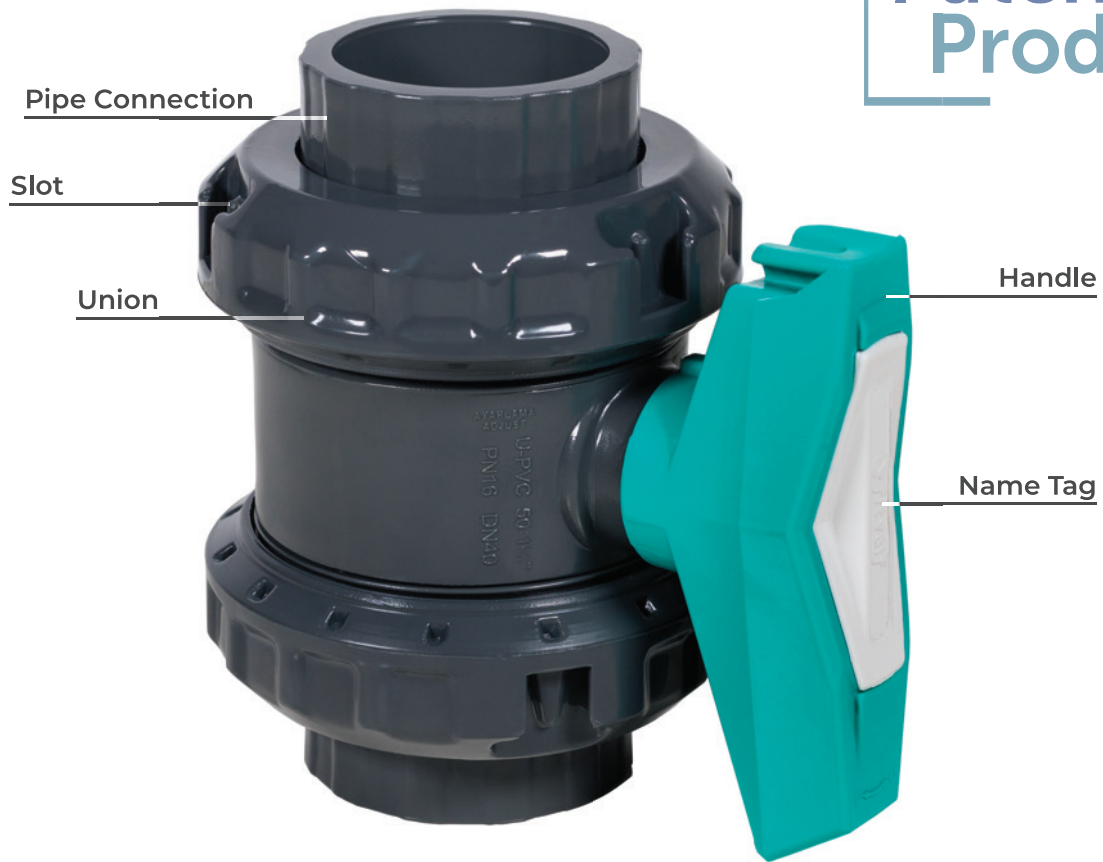
mm / inch	Code 1 / Code 2	B	H	G / ASTM	E	L	Z	C	PN	Box	Price
20 / -	131111 / -	80	52	36 / -	48	17	62	103	16	60	5,20 €
25 / -	131112 / -	89	61	25 / -	56	20	71	117	16	60	5,50 €
32 / 1"	131113 / 131113ASTM	99	64	31 / 33.4	66	22	76	130	16	20	6,50 €
40 / 1-1/4"	131114 / 131114ASTM	114	76	40 / 42.2	81	25	87	148	16	12	7,00 €
50 / 1-1/2"	131115L / 131115LASTM	116	90	50 / 48.3	100	32	71	140	16	6	8,20 €
63 / 2"	131116L / 131116LASTM	138	106	63 / 60.3	122	39	90	172	16	6	10,80 €
75 / 2-1/2"	131117L / 131117LASTM	161	113	75 / 73	143	44	101	192	16	2	28,00 €
90 / 3"	131118L / 131118LASTM	161	113	90 / 88.9	143	44	101	192	16	2	37,00 €
110 / 4"	131119L / 131119LASTM	248	171	110 / 114.3	226	61	157	284	16	1	55,00 €

Threaded Connection

mm	Code	B	H	R	E	L	Z	C	PN	Box	Price
32	131113T	99	64	1"	66	22	76	130	16	20	8,90 €
40	131114T	114	76	1-1/4"	81	25	87	148	16	12	9,40 €
50	131115LT	116	90	1-1/2"	100	32	71	140	16	6	10,80 €
63	131116LT	138	106	2"	122	39	90	172	16	6	13,40 €
75	131117LT	161	113	2-1/2"	143	44	101	192	16	2	32,00 €
90	131118LT	161	113	3"	143	44	101	192	16	2	41,00 €
110	131119LT	248	171	4"	226	61	157	284	16	1	61,00 €

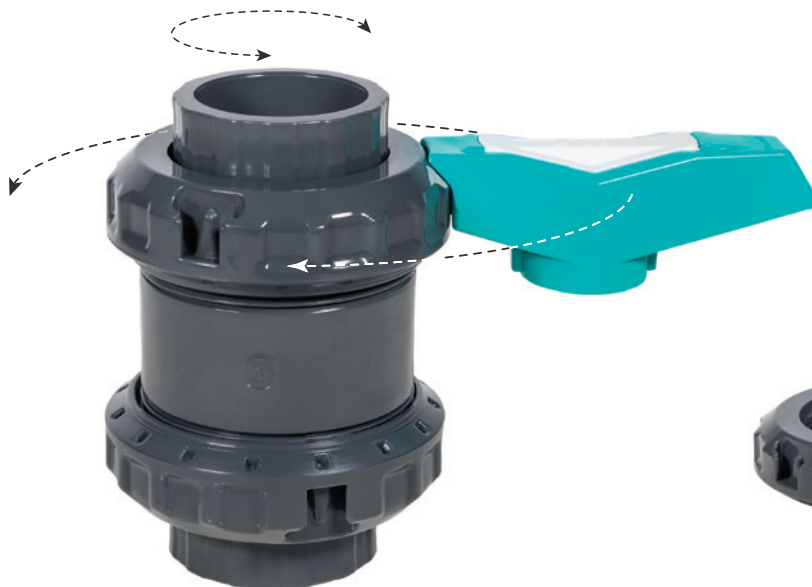
Patented Product

1.



Pull out the Handle.

2.



Place the Handle to Slot and turn the Union by Handle.

3.



Take out the Union and the Pipe Connection, then place the Handle and turn to adjust ball pressure.

Industrial Ball Valve

Patented Product



Ball Valve for corrosive applications

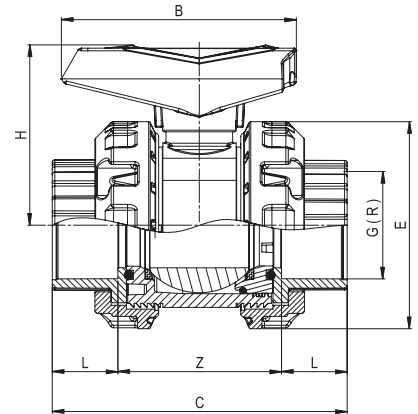
Adjustable ball pressure as well as patented union screwing with handle.

Teflon seats.

Viton o-rings. PN16.

Available in 2 models

- Slip Connection
- Threaded Connection



Slip Connection

mm / inch	Code 1 / Code 2	B	H	G / ASTM	E	L	Z	C	PN	Box	Price
32 / 1"	131123 / 131123ASTM	99	64	31 / 33.4	66	22	76	130	16	20	12,60 €
40 / 1-1/4"	131124 / 131124ASTM	114	76	40 / 42.2	81	25	87	148	16	40	15,60 €
50 / 1-1/2"	131125L / 131125LASTM	116	90	50 / 48.3	100	32	71	140	16	6	18,20 €
63 / 2"	131126L / 131126LASTM	138	106	63 / 60.3	122	39	90	172	16	6	22,00 €
75 / 2-1/2"	131127L / 131127LASTM	161	113	75 / 73	143	44	101	192	16	2	52,00 €
90 / 3"	131128L / 131128LASTM	161	113	90 / 88.9	143	44	101	192	16	2	67,00 €
110 / 4"	131129L / 131129LASTM	248	171	110 / 114.3	226	61	157	284	16	1	86,00 €

Threaded Connection

mm	Code	B	H	R	E	L	Z	C	PN	Box	Price
32	131123T	99	64	1"	66	22	76	130	16	12	14,20 €
40	131124T	114	76	1-1/4"	81	25	87	148	16	12	17,20 €
50	131125LT	116	90	1-1/2"	100	32	71	140	16	6	20,80 €
63	131126LT	138	106	2"	122	39	90	172	16	6	24,60 €
75	131127LT	161	113	2-1/2"	143	44	101	192	16	2	56,00 €
90	131128LT	161	113	3"	143	44	101	192	16	2	71,00 €
110	131129LT	248	171	4"	226	61	157	284	16	1	93,00 €

For Highly Corrosive Liquid Applications!!



1. Pull out the Handle.



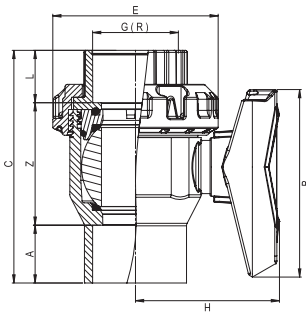
2. Place the Handle to Slot and turn the Union by Handle.



3. Take out the Union and the Pipe Connection, then place the Handle and turn to adjust ball pressure.



Single Union Ball Valve



Adjustable ball pressure as well as patented union screwing with handle.
Teflon seats.
EPDM o-rings. PN16.



Available in 2 models

- Slip Connection
- Threaded Connection

Slip Connection

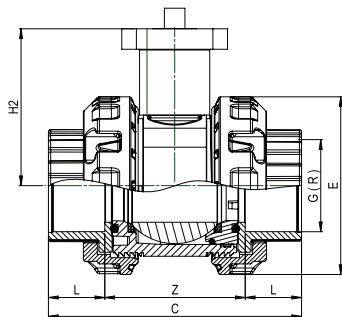
mm / inch	Code 1 / Code 2	B	H	G / ASTM	E	L	A	Z	C	PN	Box	Price
50 / 1-1/2"	131415 / 131415ASTM	116	90	50 / 48.3	100	32	37	71	140	16	6	6,97 €
63 / 2"	131416 / 131416ASTM	138	106	63 / 60.3	122	39	43	90	172	16	6	9,18 €
75 / 2-1/2"	131417 / 131417ASTM	161	113	75 / 73	143	44	47	101	192	16	2	23,80 €
90 / 3"	131418 / 131418ASTM	161	113	90 / 88.9	143	44	47	101	192	16	2	31,45 €
110* / 4"	131419 / 131419ASTM	248	171	110 / 114.3	226	61	66	157	284	16	1	46,75 €

Both Side Threaded Connection

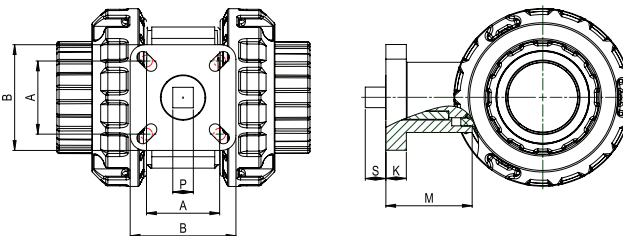
mm	Code	B	H	R	E	L	A	Z	C	PN	Box	Price
50	131415T	116	90	1-1/2"	100	32	37	71	140	16	6	9,39 €
63	131416T	138	106	2"	122	39	43	90	172	16	6	11,65 €
75	131417T	161	113	2-1/2"	143	44	47	101	192	16	2	27,83 €
90	131418T	161	113	3"	143	44	47	101	192	16	2	35,65 €
110*	131419T	248	171	4"	226	61	66	157	284	16	1	53,04 €

* 110 mm will be available in 2023

Ball Valve for Actuator Usage



Ball valve complete with PVC adaptor complies to ISO 5211 actuator connection.



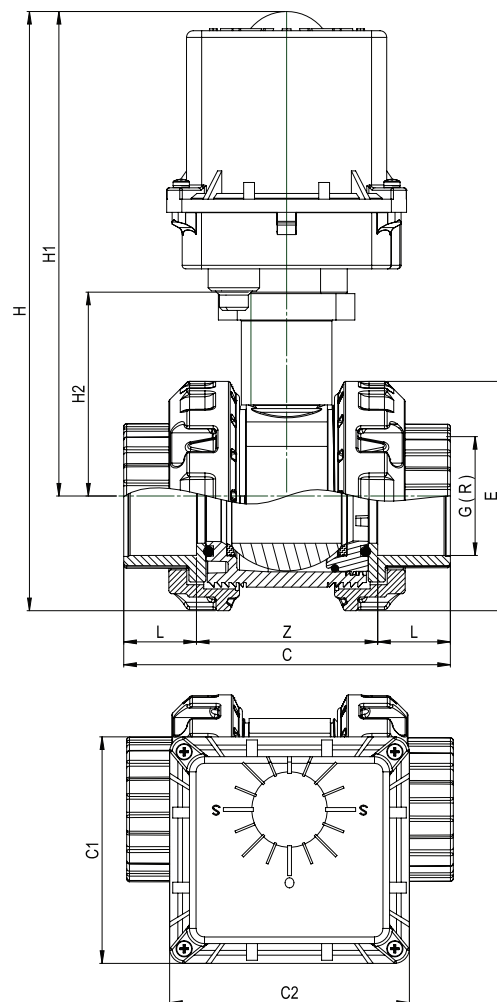
Slip Connection

mm / inch	Code 1 / Code 2	A	B	H2	G / ASTM	E	P	K	L	M	S	Z	Price
50 / 1-1/2"	131115LA / 131115LA2	50	72	100	50 / 48.3	100	14	14	32	60	14	71	10,66 €
63 / 2"	131116LA / 131116LA2	50	72	107	63 / 60.3	122	14	14	39	60	14	90	14,04 €
75 / 2-1/2"	131117LA / 131117LA2	50	72	118	75 / 73	143	14	14	44	60	14	101	36,40 €
90 / 3"	131118LA / 131118LA2	50	72	118	90 / 88.9	143	14	14	44	60	14	101	48,10 €
110 / 4"	131119LA / 131119LA2	50	72	158	110 / 114.3	226	17	14	61	70	14	157	71,50 €

Both Side Threaded Connection

mm	Code	A	B	H2	R	E	P	K	L	M	S	Z	Price
50	131115LTA	50	72	100	1-1/2"	100	14	14	32	60	14	71	14,04 €
63	131116LTA	50	72	107	2"	122	14	14	39	60	14	90	17,42 €
75	131117LTA	50	72	118	2-1/2"	143	14	14	44	60	14	101	41,60 €
90	131118LTA	50	72	118	3"	143	14	14	44	60	14	101	53,30 €
110	131119LTA	50	72	158	4"	226	17	14	61	70	14	157	79,80 €

Electric Actuated Ball Valve



ON/OFF Electric Actuator works with 24V AC/DC.
All valves can be controlled manually with switch.

Available in 2 models

- Slip Connection
- Threaded Connection

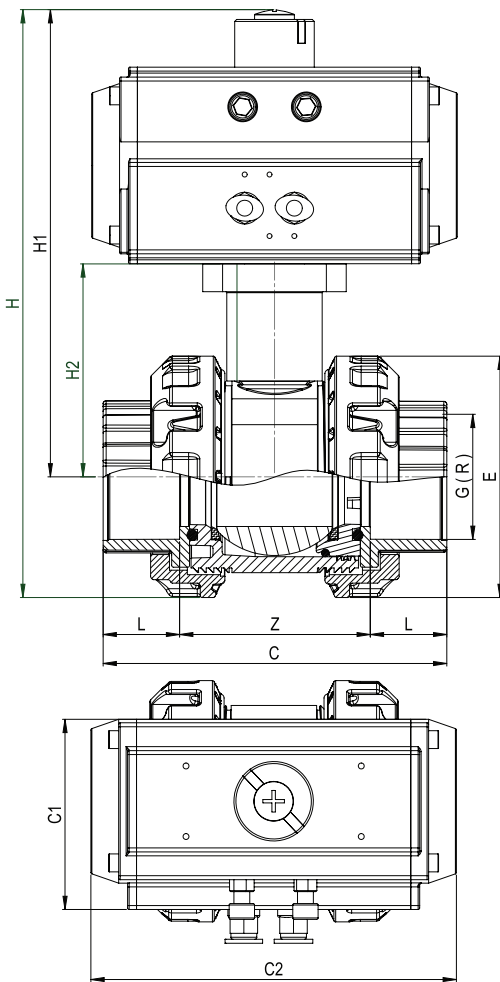
Slip Connection

mm / inch	Code 1 / Code 2	C	C1	C2	E	G / ASTM	H	H1	H2	L	Z	PN	Box	Price
50 / 1-1/2"	131115LEA / 131115LEA2	140	120	127	100	50 / 48.3	298	248	100	32	71	16	6	240,10 €
63 / 2"	131116LEA / 131116LEA2	172	120	127	122	63 / 60.3	316	255	107	39	90	16	6	296,94 €
75 / 2-1/2"	131117LEA / 131117LEA2	192	120	127	143	75 / 73	338	266	118	44	101	16	2	343,00 €
90 / 3"	131118LEA / 131118LEA2	192	120	127	143	90 / 88.9	338	266	118	44	101	16	2	380,24 €
110 / 4"	131119LEA / 131119LEA2	284	157	168	226	110 / 114.3	420	306	158	61	157	16	1	416,50 €

Threaded Connection

mm	Code	C	C1	C2	E	R	H	H1	H2	L	Z	PN	Box	Price
50	131115LTEA	140	120	127	100	1-1/2"	298	248	100	32	71	16	6	242,70 €
63	131116LTEA	172	120	127	122	2"	316	255	107	39	90	16	6	299,50 €
75	131117LTEA	192	120	127	143	2-1/2"	338	266	118	44	101	16	2	347,00 €
90	131118LTEA	192	120	127	143	3"	338	266	118	44	101	16	2	384,20 €
110	131119LTEA	284	157	168	226	4"	420	306	158	61	157	16	1	422,50 €

Pneumatic Actuated Ball Valve



Double Acting Pneumatic Actuator.

Made from extruded aluminum. Shaft from cadmium plating steel. Pistons from casted aluminum.

Quick OPEN/CLOSE compared to electric actuators.

Valve fixation according to ISO5211.

Available in 2 models

- Slip Connection
- Threaded Connection

Slip Connection

mm / inch	Code 1 / Code 2	C	C1	C2	E	G / ASTM	H	H1	H2	L	Z	PN	Box	Price
50 / 1-1/2"	131115LPA / 131115LPA2	140	96	184	100	50 / 48.3	278	228	100	32	71	16	6	128,25 €
63 / 2"	131116LPA / 131116LPA2	172	96	184	122	63 / 60.3	296	235	107	39	90	16	6	133,00 €
75 / 2-1/2"	131117LPA / 131117LPA2	192	96	184	143	75 / 73	318	246	118	44	101	16	2	181,07 €
90 / 3"	131118LPA / 131118LPA2	192	96	184	143	90 / 88.9	318	246	118	44	101	16	2	200,36 €
110 / 4"	131119LPA / 131119LPA2	284	104	206	226	110 / 114.3	400	286	158	61	157	16	1	241,21 €

Threaded Connection

mm	Code	C	C1	C2	E	R	H	H1	H2	L	Z	PN	Box	Price
50	131115LTPA	140	96	184	100	1-1/2"	278	228	100	32	71	16	6	130,90 €
63	131116LTPA	172	96	184	122	2"	296	235	107	39	90	16	6	135,60 €
75	131117LTPA	192	96	184	143	2-1/2"	318	246	118	44	101	16	2	185,10 €
90	131118LTPA	192	96	184	143	3"	318	246	118	44	101	16	2	204,40 €
110	131119LTPA	284	104	206	226	4"	400	286	158	61	157	16	1	247,20 €

Butterfly Valves

New
Product



Our new butterfly valve for regulating flow, specifically designed for water applications.

- Disk in PVC-U with through shaft
- Zinc plated square section steel stem completely isolated from the fluid complying with standard
- Can also be installed as a bottom discharge valve or tank dump valve
- Valve material compatibility (PVC-U) with swimming pool, water treatment, agriculture irrigation, drinking water and other food substances according to current regulations
- Possibility of directly installing a gearbox or pneumatic and/or electric actuators with a standard drilling pattern according to standard ISO 5211 F05, F07, F10
- Sensitive, angular adjustment for flow regulation
- Option to put security padlock

Technical specifications

Construction	Bi-directional centric butterfly valve
Size range	DN 40 / 200
Nominal pressure	Wafer version DN 40 / 50: PN 16 with water at 20 °C DN 65/200: PN 10 with water at 20 °C
Temperature range	Max 50 °C
Reference standards	Flanging system: EN ISO 1452, EN ISO 15493, DIN 2501, ISO 7005-1, EN 1092-1, ANSI B16.5 Cl.150
Riferimenti reference standards	Construction criteria: EN ISO 16136, EN ISO 1452, EN ISO 15493 Test methods and requirements: ISO 9393 Actuator couplings: ISO 5211
Valve material	Body: PVC-U Disk: PVC-U Handle: ABS Stem: Zinc plated carbon steel (C45). On request STAINLESS steel AISI 316
Seal material	Liner: EPDM, FKM. On request NBR
Control option	Hand lever operated; Gearbox, pneumatic actuator, electric actuator

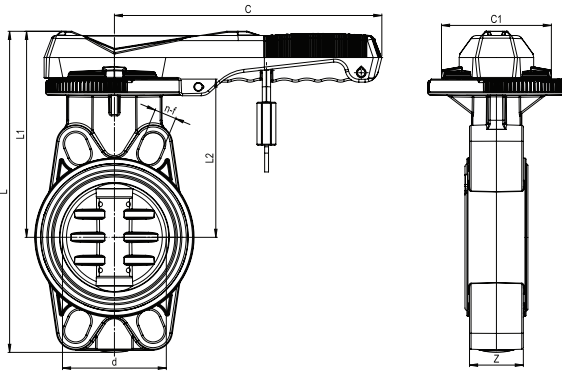


NEW Butterfly Valves Release Dates

mm	Release Date
90	06.2023
160	12.2022
200	03.2023
225	03.2023

New Product

Butterfly Valve



Handle from ABS.

The valve can be positioned in desired angle by the help of handle clutches.

Liner from EPDM.

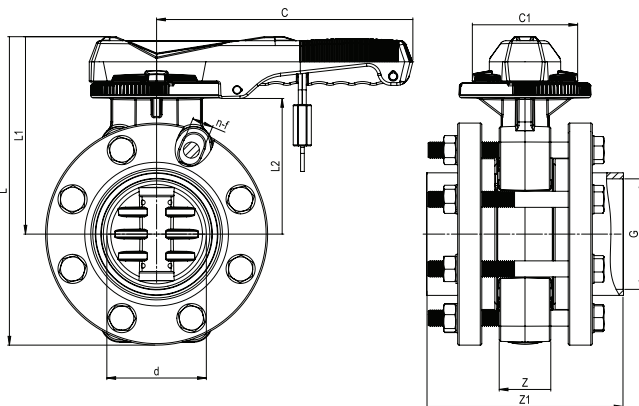
Security padlock hole.



mm	Code	d	C	C1	L	L1	L2	n-F	Z	PN	Box	Price
63	131620	48	190	55	223	143	100	4-19	43	16	1	41,00 €
75	131621	69	189	59	244	152	106	25-21	32	16	1	45,00 €
90	131622	78	240	55	270	160	120	8-19	49	16	1	48,00 €
110	131623	101	255	105	307	195	150	20-30	51	16	1	55,00 €
125	131624	126	255	105	340	215	167	23-29	59	16	1	62,00 €
140	131625	126	255	105	340	215	167	23-29	59	16	1	62,00 €
160	131626	146	310	72	382	239	181	8-23	70	10	1	79,00 €
200	131627	199	310	72	452	280	215	8-23	88	10	1	132,00 €
225	131628	199	310	72	452	280	215	8-23	88	10	1	132,00 €
250	131629	250	310	155	450	325	165	10-25	100	10	1	350,00 €
280	131630	280	310	155	480	340	195	10-25	110	10	1	350,00 €
315	131631	300	320	155	500	350	215	10-25	120	10	1	900,00 €

New Product

Butterfly Valve - Flanged



Handle from ABS.

The valve can be positioned in desired angle by the help of handle clutches.

Liner from EPDM.

Security padlock hole.

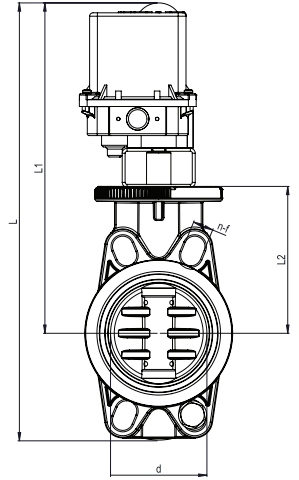
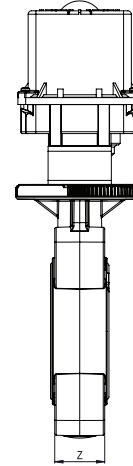
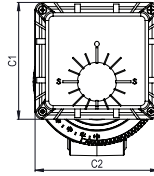
Complete with flanges, bolts and nuts.



mm / inch	Code 1 / Code 2	d	C	C1	G / ASTM	L	L1	L2	n-F	Z	PN	Box	Price
63 / -	131600 / -	48	190	55	63 / -	223	143	100	4-19	43	16	1	60,00 €
75 / -	131601 / -	69	189	59	75 / -	244	152	106	25-21	32	16	1	65,00 €
90 / 3"	131602 / 131602ASTM	78	240	55	90 / 88.9	270	160	120	8-19	49	16	1	72,00 €
110 / 4"	131603 / 131603ASTM	101	255	105	110 / 114.3	307	195	150	20-30	51	16	1	81,00 €
125 / -	131604 / -	126	255	105	125 / -	340	215	167	23-29	59	16	1	95,00 €
140 / -	131605 / -	126	255	105	140 / -	340	215	167	23-29	59	16	1	95,00 €
160 / -	131606 / -	146	310	72	160 / -	382	239	181	8-23	70	10	1	139,00 €
200 / -	131607 / -	199	310	72	200 / -	452	280	215	8-23	88	10	1	195,00 €
225 / -	131608 / -	199	310	72	225 / -	452	280	215	8-23	88	10	1	199,00 €
250 / -	131609 / -	250	310	155	250 / -	450	325	165	10-25	100	10	1	505,00 €
280 / -	131610 / -	280	310	155	280 / -	480	340	195	10-25	110	10	1	520,00 €
315 / -	131611 / -	300	320	155	315 / -	500	350	215	10-25	120	10	1	1200,00 €

Electric Actuated Butterfly Valve

New Product



ON/OFF electric valve actuator, works with 24V AC/DC.

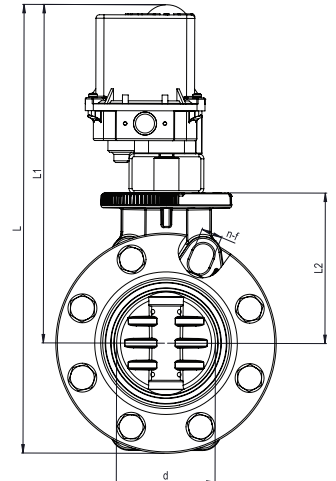
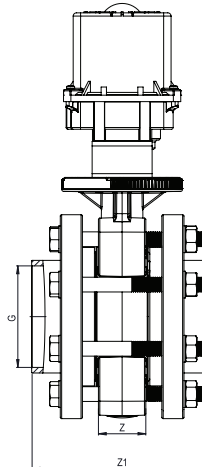
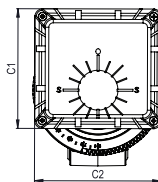
All valves can be controlled manually with allen key.

mm	Code	d	C1	C2	L	L1	L2	n-F	Z	PN	Price
90	131622M11	90	120	127	410	310	120	8-16	49	16	404,84 €
110	131623M11	101	120	127	450	340	150	20-30	51	16	412,00 €
125	131624M2	126	120	127	480	357	167	23-29	59	16	706,48 €
140	131625M2	126	120	127	480	357	167	23-29	59	16	706,48 €
160	131626M2	146	120	127	570	426	181	8-23	70	10	723,24 €
200	131627M2	199	120	127	635	460	225	8-23	88	10	800,00 €
225	131628M2	199	167	157	635	460	225	8-23	88	10	800,00 €

Please contact our company proportional type actuators

Electric Actuated Butterfly Valve - Flanged

New Product



ON/OFF electric valve actuator, works with 24V AC/DC.

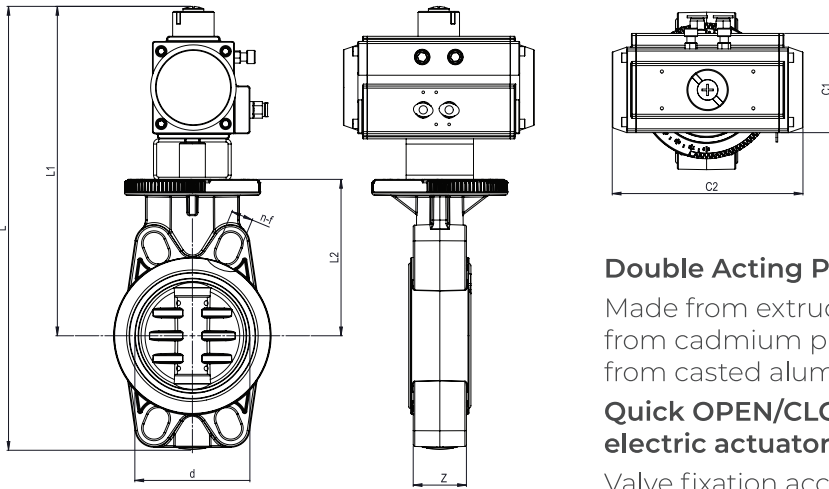
All valves can be controlled manually with allen key.

Complete with flange, flange adaptor and nuts.

mm / inch	Code 1 / Code 2	d	C1	C2	G / ASTM	L	L1	L2	n-F	Z	Z1	PN	Price
90 / 3"	131602M11 / 131602M11ASTM	78	120	157	90 / 88.9	410	310	120	8-19	49	154	16	428,84 €
110 / 4"	131603M11 / 131602M11ASTM	101	120	127	110 / 114.3	450	340	150	20-30	51	187	16	438,00 €
125 / -	131604M2 / -	126	120	127	125 / -	480	357	167	23-29	59	217	16	737,48 €
140 / -	131605M2 / -	126	120	127	140 / -	480	357	167	23-29	59	227	16	739,48 €
160 / -	131606M2 / -	146	167	157	160 / -	570	426	181	8-23	70	250	10	762,74 €
200 / -	131607M2 / -	199	120	127	200 / -	635	460	215	8-23	88	312	10	866,00 €
225 / -	131608M2 / -	199	167	157	225 / -	635	460	215	8-23	88	340	10	866,00 €

New Product

Pneumatic Actuated Butterfly Valve



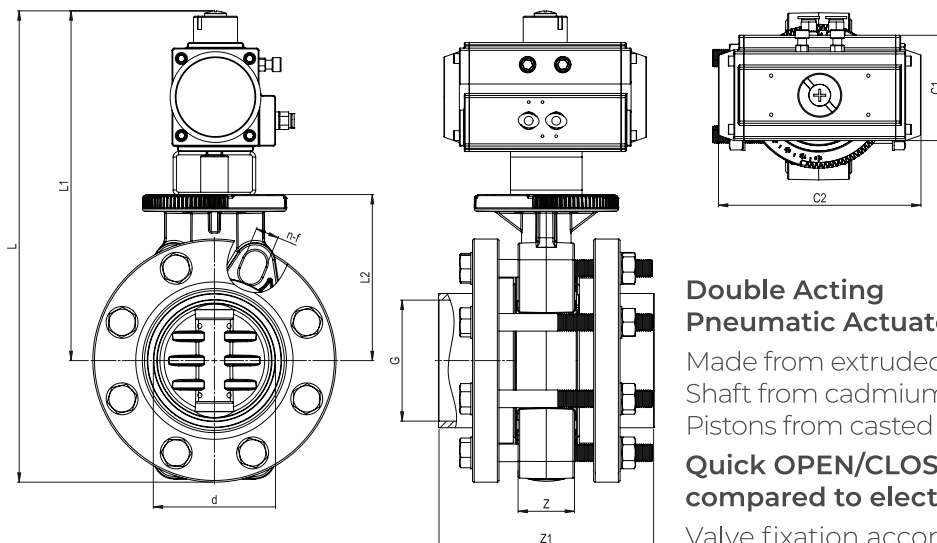
Double Acting Pneumatic Actuator.
 Made from extruded aluminum. Shaft from cadmium plating steel. Pistons from casted aluminum.
Quick OPEN/CLOSE compared to electric actuators.
 Valve fixation according to ISO5211.

mm	Code	d	C1	C2	L	L1	L2	n-F	Z	PN	Price
110	131623PA	101	96	184	430	320	150	20-30	51	16	196,94 €
125	131624PA	126	96	184	460	337	167	23-29	59	16	205,01 €
140	131625PA	126	96	184	460	337	167	23-29	59	16	205,01 €

Please contact our company for other size of pneumatic valves

New Product

Pneumatic Actuated Butterfly Valve - Flanged

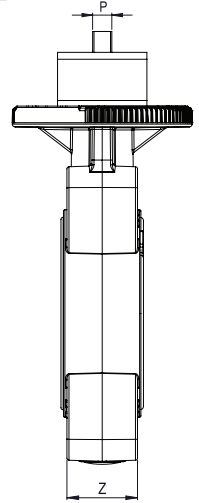
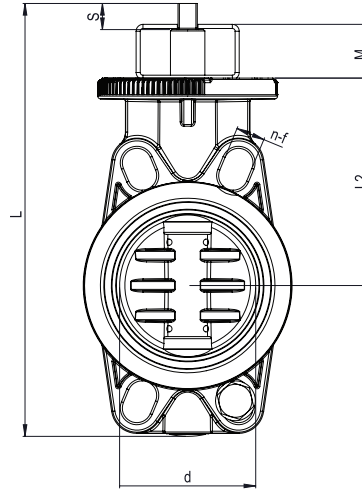
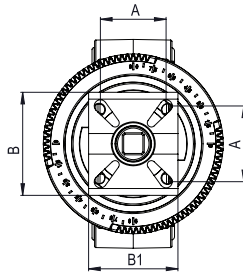


Double Acting Pneumatic Actuator.
 Made from extruded aluminum. Shaft from cadmium plating steel. Pistons from casted aluminum.
Quick OPEN/CLOSE compared to electric actuators.
 Valve fixation according to ISO5211.
Complete with flange, flange adaptor and nuts.

mm / inch	Code 1 / Code 2	d	C1	C2	G / ASTM	L	L1	L2	n-F	Z	Z1	PN	Price
110 / 4"	131603PA / 131603PA2	101	96	184	110 / 114.3	430	320	150	20-30	51	187	16	226,94 €
125 / -	131604PA / -	126	96	184	125 / -	460	337	167	23-29	59	217	16	238,01 €
140 / -	131605PA / -	126	96	184	140 / -	460	337	167	23-29	59	227	16	238,01 €

Butterfly Valve for Actuator Usage

New Product



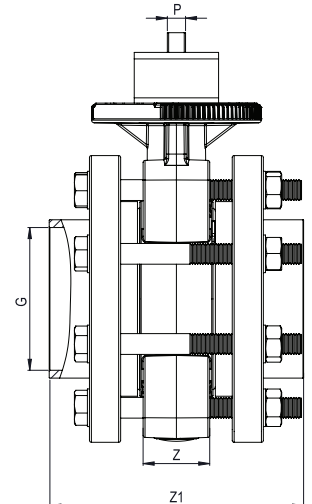
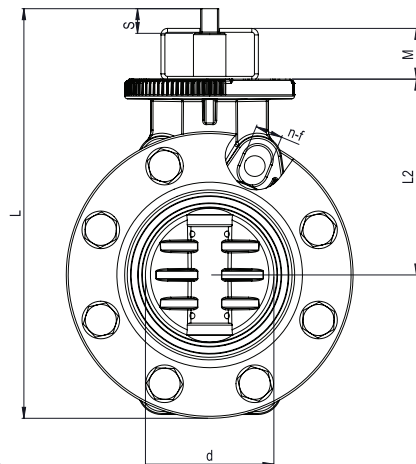
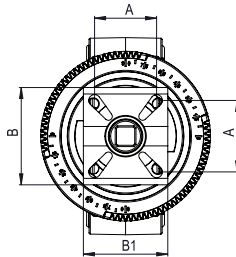
Butterfly valve with metal flange according to ISO5211 actuator connection.

mm	Code	d	A	B	B1	L	L2	M	P	S	n-F	Z	PN	Price
90	131622A	78	50	75	65	284	168	40	14	19	4-19	49	16	45,60 €
110	131623A	101	50	75	65	315	150	40	14	19	20-30	51	16	52,25 €
125	131624A	126	50	75	65	350	167	40	17	19	23-29	59	16	58,90 €
140	131625A	126	50	75	65	350	167	40	17	19	23-29	59	16	58,90 €
160	131626A	146	50	75	65	399	181	40	17	19	23-29	70	10	75,05 €
200	131627A	199	50	75	65	459	215	40	17	19	23-29	88	10	125,40 €
225	131628A	199	50	75	65	459	215	40	17	19	23-29	88	10	125,40 €

Please contact our company proportional type actuators

Butterfly Valve for Actuator Usage - Flanged

New Product

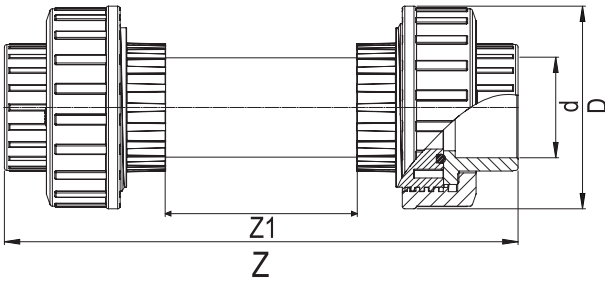


Butterfly valve with metal flange according to ISO5211 actuator connection.

Complete with flange, flange adaptor and nuts.

mm / inch	Code 1 / Code 2	d	A	B	B1	G / ASTM	L	L2	M	P	M	n-F	Z	Z1	PN	Price
90 / 3"	131602A / 131622A2	78	50	75	65	90 / 88.9	284	168	40	14	19	4-19	49	163	16	97,78 €
110 / 4"	131603A / 131623A2	101	50	75	65	110 / 114.3	315	150	40	14	19	20-30	51	181	16	115,43 €
125 / -	131604A / -	126	50	75	65	125 / -	350	167	40	17	19	23-29	59	217	16	129,01 €
140 / -	131605A / -	126	50	75	65	140 / -	350	167	40	17	19	23-29	59	227	16	129,01 €
160 / -	131606A / -	146	50	75	65	160 / -	399	181	40	17	19	23-29	70	250	10	188,76 €
200 / -	131607A / -	199	50	75	65	200 / -	459	215	40	17	19	23-29	88	312	10	264,81 €
225 / -	131608A / -	199	50	75	65	225 / -	459	215	40	17	19	23-29	88	340	10	270,24 €

Union Sight Glass

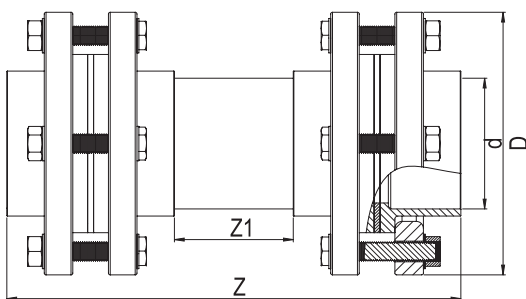


Sight glass section from transparent PVC.

Connection with unions.

mm / inch	Code 1 / Code 2	d	D	Z1	Z	PN	Price
20 / -	134200 / -	20 / -	48	100	190	16	15,40 €
25 / -	134201 / -	25 / -	56	100	205	16	16,80 €
32 / 1"	134202 / 134202ASTM	32 / 33.4	67	100	220	16	18,20 €
40 / 1-1/4"	134203 / 134203ASTM	40 / 42.2	82	100	230	16	19,60 €
50 / 1-1/2"	134204 / 134204ASTM	50 / 48.3	82	100	255	16	21,00 €
63 / 2"	134205 / 134205ASTM	63 / 60.3	106	100	290	16	23,80 €
75 / 2-1/2"	134206 / 134206ASTM	75 / 73	110	100	300	16	60,20 €
90 / 3"	134207 / 134207ASTM	90 / 88.9	156	100	340	16	81,20 €
110 / 4"	134208 / 134208ASTM	110 / 114.3	179	100	380	16	89,60 €

Flanged Sight Glass



Sight Glass from transparent PVC.

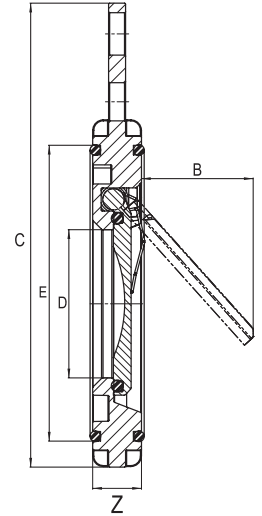
Complete with counter flange, bolts, adaptors.

mm / inch	Code 1 / Code 2	D	d	Z	Z1	PN	Price
90 / 3"	134220 / 134220ASTM	200	90 / 88.9	330	100	16	92,00 €
110 / 4"	134221 / 134221ASTM	220	110 / 114.3	382	100	16	102,00 €
125 / -	134222 / -	250	125 / -	410	100	16	112,00 €
140 / -	134223 / -	250	140 / -	435	100	16	126,00 €
160 / -	134224 / -	285	160 / -	470	100	10	189,00 €
200 / -	134225 / -	338	200 / -	555	100	10	224,00 €
225 / -	134226 / -	341	225 / -	610	100	10	266,00 €

Wafer Check Valve



Wide damper opening distance.
 Demper closure with spring.
Spring from AISI 316 Stainless Steel

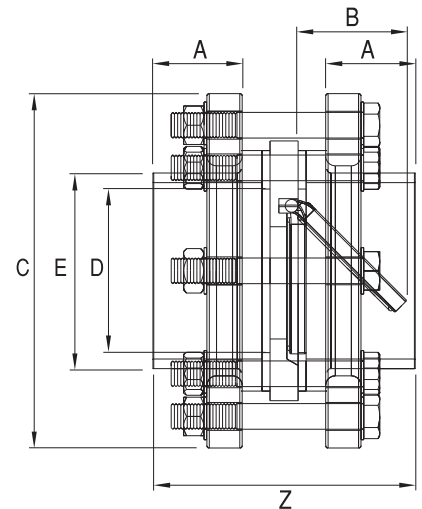


mm	Code	DN	D	PN	E	C	Z	B	Price
90	131530	80	53	16	113	192	20	62	28,75 €
110	131531	100	70	16	140	219	23	85	33,85 €
125	131532	100	91	16	161	251	23	90	38,80 €
140	131533	125	91	16	161	251	23	100	44,40 €
160	131534	150	100	10	202	281	25	152	50,00 €
200	131535	200	125	10	240	330	33	162	62,00 €
225	131536	200	125	10	240	330	33	160	71,00 €
250	131537	250	170	10	315	325	38	175	135,00 €
280	131538	250	170	10	315	325	38	190	203,00 €
315	131539	300	220	10	365	380	43	225	275,00 €

Wafer Check Valve - Flanged

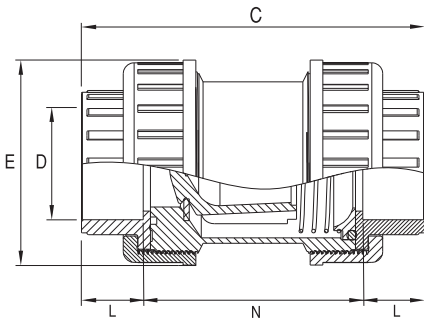


Wide damper opening distance.
 Demper closure with spring.
Spring from AISI 316 Stainless Steel
 Complete with flange adaptors,
 flanges, bolts and nuts.



mm / inch	Code 1 / Code 2	B	A	C	E	D / ASTM	Z	PN	Box	Price
90 / 3"	131502 / 131502ASTM	62	44	201	107	90 / 88.9	133	16	1	48,00 €
110 / 4"	131503 / 131503ASTM	85	55	219	123	110 / 114.3	168	16	1	58,00 €
125 / -	131504 / -	90	62	249	139	125 / -	178	16	1	63,00 €
140 / -	131505 / -	100	66	249	155	140 / -	182	16	1	73,00 €
160 / -	131506 / -	152	90	283	189	160 / -	206	10	1	83,00 €
200 / -	131507 / -	162	112	340	175	200 / -	258	10	1	124,00 €
225 / -	131508 / -	160	126	340	200	225 / -	286	10	1	144,00 €
250 / -	131509 / -	175	132	394	275	250 / -	350	10	1	304,00 €
280 / -	131510 / -	190	145	400	305	280 / -	380	10	1	378,00 €
315 / -	131511 / -	225	163	445	342	315 / -	415	10	1	531,00 €

Spring Weighed Check Valve

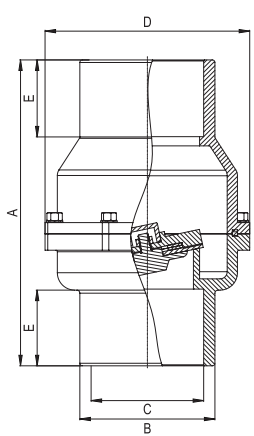


Slip connection.
 EPDM O-rings, AISI 316 quality spring.
Transparent body optional.

mm / inch	Code 1 / Code 2	L	N	C	D / ASTM	E	PN	Box	Price
50 / 1-1/2"	131315 / 131315ASTM	33	95	169	50 / 48.3	99	16	6	8,85 €
63 / 2"	131316 / 131316ASTM	34	112	190	63 / 60.3	114	16	6	11,75 €
75 / 2-1/2"	131317 / 131317ASTM	43	131	230	75 / 73	148	16	2	27,50 €
90 / 3"	131318 / 131318ASTM	42	132	230	90 / 88.9	148	16	2	30,50 €
50 / 1-1/2"	131315PC / 131315PCASTM	33	95	169	50 / 48.3	99	16	6	16,00 €
63 / 2"	131316PC / 131316PCASTM	34	112	190	63 / 60.3	114	16	6	20,00 €
75 / 2-1/2"	131317PC / 131317PCASTM	43	131	230	75 / 73	148	16	2	45,00 €
90 / 3"	131318PC / 131318PCASTM	42	132	230	90 / 88.9	148	16	2	52,00 €

"PC" codes for transparent models.

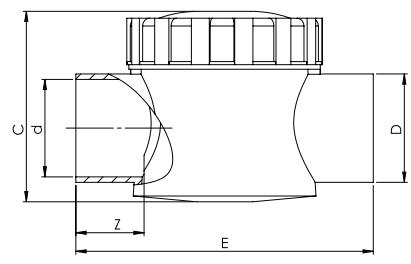
Swing Check Valve



mm	Code	A	B	C	D	E	PN	Price
63	131500Y	160	81	63	124	37	16	16,00 €
75	131501Y	192	95	75	150	45	16	39,00 €
90	131502Y	232	112	90	178	55	16	50,00 €
110	131503Y	296	135	110	202	74	16	67,00 €



Transparent Swing Check Valve

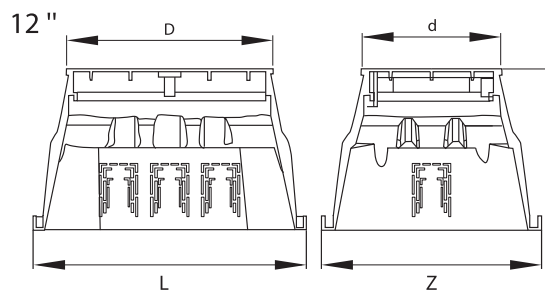
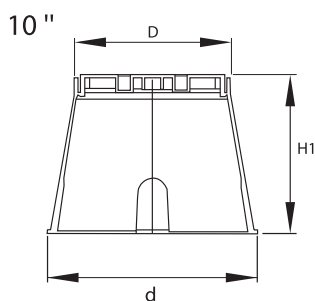


Wide demper opening distance.
 Demper closure with spring.
Easy top acces for maintance.

mm	Code	C	d	D	E	Z	DN	Price
63	131800EM	122	63	70	192	44	50	32,00 €



Valve Box

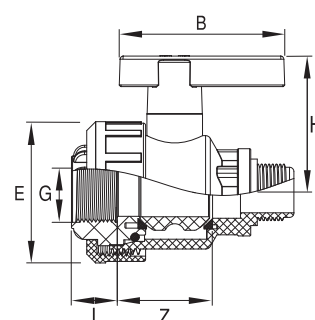


inch	Code	D	d	L	Z	H1	Price
10"	135601	240	320	-	-	255	6,71 €
12"	135602	375	255	500	400	305	12,21 €

Mini Valves PP



Valve from PP, handle from ABS.

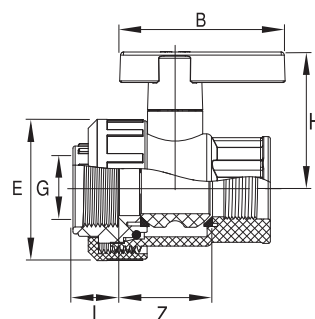


Male-Female

D	Description	Code	B	H	G	E	L	Z	PN	Box	Price
1" x 3/4"	Male-Female	131210	76	63	36	65	21	44	16	100	1,21 €
3/4"	Male-Female	131211	76	63	25	65	21	44	16	100	1,21 €
1"	Male-Female	131212	76	63	31	65	21	44	16	100	1,21 €



Valve from PP, handle from ABS.



Female-Female

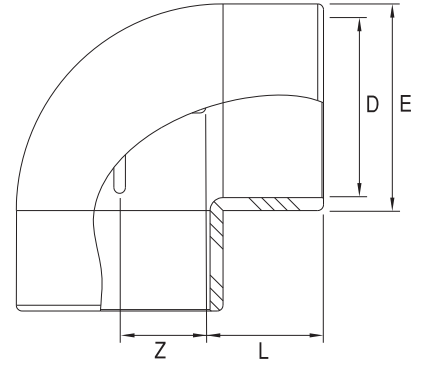
D	Description	Code	B	H	G	E	L	Z	PN	Box	Price
1" x 3/4"	Female-Female	131210D	76	63	40	65	21	44	16	100	1,21 €
3/4"	Female-Female	131211D	76	63	50	65	21	44	16	100	1,21 €
1"	Female-Female	131212D	76	63	63	65	21	44	16	100	1,21 €



UPVC Fittings

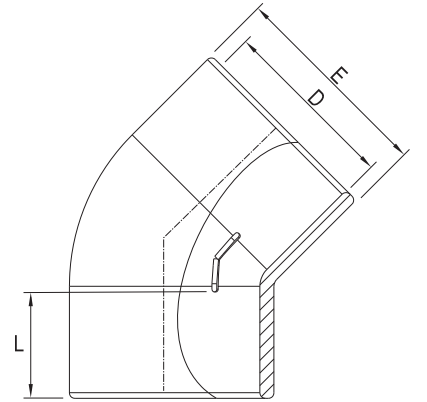


Elbow 90°



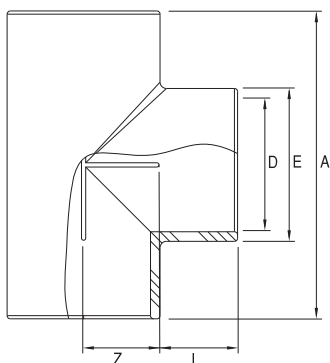
mm / inch	Code 1 / Code 2	E	D / ASTM	L	Z	PN	Box	Price
20 / -	133101 / -	25	20 / -	16	11	16	250	0,23 €
25 / -	133102 / -	31	25 / -	19	13	16	400	0,28 €
32 / 1"	133103 / 133103ASTM	39	32 / 33.40	22	17	16	250	0,42 €
40 / -	133104 / -	48	49 / -	26	23	16	144	0,81 €
50 / 1-1/2"	133105 / 133105ASTM	58	50 / 48.26	30	20	16	180	0,82 €
63 / 2"	133106 / 133106ASTM	74	63 / 60.33	38	30	16	100	1,03 €
75 / -	133107 / -	87	75 / -	44	38	16	80	1,97 €
90 / 3"	133108 / 133108ASTM	104	90 / 88.90	50	44	16	50	2,73 €
110 / 4"	133109 / 133109ASTM	124	110 / 114.30	60	57	16	30	4,62 €
125 / -	133110 / -	139	125 / -	69	67	16	16	7,21 €
140 / -	133111 / -	155	140 / -	76	71	16	12	10,67 €
160 / -	133112 / -	180	160 / -	75	86	16	8	13,81 €
200 / -	133113 / -	222	200 / -	106	106.5	10	4	33,61 €
225 / -	133114 / -	246	225 / -	119	115.5	10	2	48,95 €
250 / -	133115 / -	279	250 / -	131	128	10	1	123,20 €
280 / -	133116 / -	317	280 / -	150	140	10	1	192,50 €
315 / -	133117 / -	352	315 / -	164	161.5	10	1	217,80 €

Elbow 45°

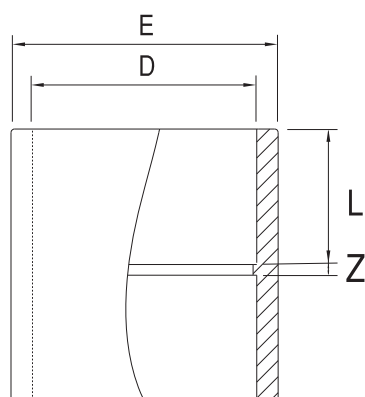


mm / inch	Code 1 / Code 2	E	D / ASTM	L	PN	Box	Price
20 / -	133201 / -	25	20 / -	6	16	600	0,23 €
25 / -	133202 / -	31	25 / -	19	16	500	0,27 €
32 / -	133203 / -	39	32 / -	22	16	320	0,41 €
40 / -	133204 / -	48	49 / -	26	16	150	0,76 €
50 / 1-1/2"	133205 / 133205ASTM	58	50 / 48.26	30	16	225	0,79 €
63 / 2"	133206 / 133206ASTM	74	63 / 60.33	34	16	150	0,93 €
75 / -	133207 / -	87	75 / -	44	16	100	1,88 €
90 / 3"	133208 / 133208ASTM	104	90 / 88.90	56	16	50	2,54 €
110 / -	133209 / -	124	110 / -	62	16	30	4,46 €
125 / -	133210 / -	139	125 / -	67	16	18	6,88 €
140 / -	133211 / -	155	140 / -	77	16	15	9,85 €
160 / -	133212 / -	180	160 / -	86	16	9	13,75 €
200 / -	133213 / -	222	200 / -	108	10	4	29,48 €
225 / -	133214 / -	246	225 / -	199.6	10	2	48,40 €
250 / -	133215 / -	279	250 / -	131	10	1	105,60 €
280 / -	133216 / -	317	280 / -	150	10	1	176,00 €
315 / -	133217 / -	352	315 / -	164	10	1	188,10 €

Tee



mm / inch	Code 1 / Code 2	A	E	D / ASTM	L	Z	PN	Box	Price
20 / -	133301 / -	58	25	20 / -	16	13	16	150	0,28 €
25 / -	133302 / -	66	31	25 / -	19	14	16	300	0,32 €
32 / -	133303 / -	78	38,5	32 / -	22	17	16	200	0,65 €
40 / -	133304 / -	98	48	49 / -	26	23	16	100	0,91 €
50 / 1-1/2"	133305 / 133305ASTM	120	59	50 / 48.3	34	26	16	115	0,93 €
63 / 2"	133306 / 133306ASTM	145	72	63 / 60.3	38	34	16	75	1,31 €
75 / -	133307 / -	166	85	75 / -	45	40	16	50	2,31 €
90 / 3"	133308 / 133308ASTM	200	101	90 / 88.9	52	48	16	30	3,57 €
110 / -	133309 / -	238	122	110 / -	60	60	16	20	5,62 €
125 / -	133310 / -	268	139	125 / -	69	65	16	11	8,86 €
140 / -	133311 / -	294	156	140 / -	76	71	16	8	14,30 €
160 / -	133312 / -	332	180	160 / -	86	81	16	5	19,69 €
200 / -	133313 / -	415	220	200 / -	106	101.5	10	3	35,20 €
225 / -	133314 / -	468	246	225 / -	119	115	10	2	66,00 €
250 / -	133315 / -	518	276	250 / -	132	126	10	1	136,40 €
280 / -	133316 / -	617	317	280 / -	159	150	10	1	209,00 €
315 / -	133317 / -	651	352	315 / -	164	161.5	10	1	242,55 €

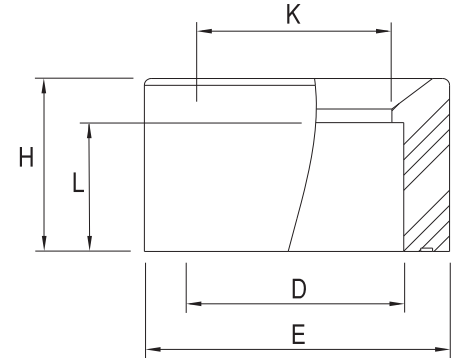


mm / inch	Code 1 / Code 2	E	D / ASTM	L	Z	PN	Box	Price
20 / -	133821 / -	25	20 / -	16	6	16	500	0,17 €
25 / -	133822 / -	31	25 / -	19	4	16	500	0,21 €
32 / -	133823 / -	39	32 / -	22	3	16	300	0,24 €
40 / -	133824 / -	48	40 / -	26	5	16	250	0,40 €
50 / 1-1/2"	133805 / 133805ASTM	60	50 / 48.3	31	3	16	150	0,41 €
63 / 2"	133806 / 133806ASTM	75	63 / 60.33	38	3	16	87	0,64 €
75 / 2-1/2"	133807 / 133807ASTM	89	75 / 73	44	3	16	96	1,30 €
90 / 3"	133808 / 133808ASTM	105	90 / 88.9	51	2	16	60	1,64 €
110 / 4"	133809 / 133809ASTM	128	110 / 114.3	59	5	16	36	2,77 €
125 / -	133804 / -	139	125 / -	69	6	16	24	3,60 €
140 / -	133803 / -	155	140 / -	75	6	16	15	4,25 €
160 / -	133802 / -	186	160 / -	86	8	16	12	6,36 €
200 / -	133810 / -	219	200.5 / -	108	10	10	5	14,30 €
225 / -	133811 / -	247	225.5 / -	199.5	12	10	3	22,94 €
250 / -	133812 / -	279	250 / -	131	7	10	1	39,16 €
280 / -	133813 / -	380	317 / -	148	10	10	1	62,00 €
315 / -	133814 / -	352	315 / -	164	16	10	1	76,89 €

Socket

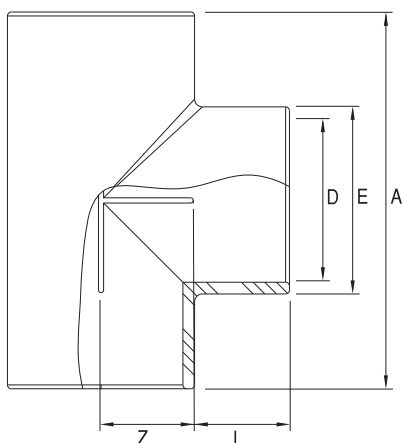


Reducing Socket



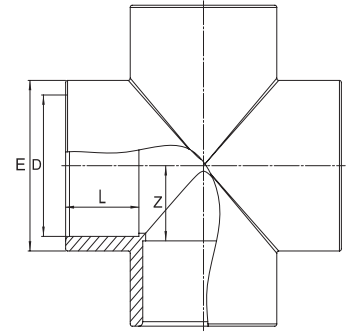
mm / inch	Code 1 / Code 2	K	H	L	D / ASTM	E	PN	Box	Price
25-20 / -	133602 / -	16	16	16	20 / -	25 / -	16	250	0,11 €
32-25 / -	133604 / -	21	21	21	25 / -	32 / -	16	1000	0,11 €
40-32 / -	133603 / -	28	28	28	32 / -	40 / -	16	600	0,15 €
50-32 / -	133601 / -	28	28	28	50 / -	32 / -	16	200	0,37 €
50-40 / -	1336095 / -	38	38	38	50 / -	40 / -	16	250	0,30 €
63-32 / -	1336053 / -	30	30	30	63 / -	32 / -	16	200	0,65 €
63-40 / 2" -1 1/2"	1336052 / 1336052ASTM	38	38	38	40 / 42.2	63 / 60.3	16	200	0,78 €
63-50 / 2" -1 1/4"	133605 / 133605ASTM	43	43	43	50 / 48.3	63 / 60.3	16	252	0,47 €
75-40 / 2 1/2" -1 1/4"	1336062 / 1336062ASTM	38	38	38	40 / 42.2	75 / 73	16	150	1,00 €
75-63 / 2 1/2" -2"	133606 / 133606ASTM	57	57	57	63 / 60.3	75 / 73	16	150	0,46 €
90-75 / 3" -2 1/2"	133607 / 133607ASTM	67	67	67	75 / 73	90 / 88.9	16	88	0,67 €
110-90 / -	133608 / -	81	81	81	90 / -	110 / -	16	48	1,59 €
75-50 / 2 1/2" -1 1/2"	1336061 / 1336061ASTM	40	40	40	50 / 48.3	76 / 73	16	150	0,68 €
90-63 / 3" -2"	1336071 / 1336071ASTM	56	56	56	63 / 60.3	90 / 89.9	16	88	0,81 €
110-75 / -	1336081 / -	68	68	68	75 / -	110 / -	16	48	1,86 €
110-63 / -	1336082 / -	56	56	56	63 / -	110 / -	16	48	1,98 €
125-90 / -	1336091 / -	82	82	82	90 / -	125 / -	16	36	2,64 €
125-110 / -	133609 / -	102	102	102	110 / -	125 / -	16	36	1,51 €
140-90 / -	133612 / -	80	80	80	90 / -	140 / -	16	23	4,13 €
140-110 / -	1336121 / -	100	100	100	110 / -	140 / -	16	23	2,74 €
140-125 / -	1336122 / -	117	117	117	125 / -	140 / -	16	23	1,84 €
160-90 / -	133610 / -	81	81	81	90 / -	161 / -	10	15	6,27 €
160-110 / -	133611 / -	100	100	100	110 / -	160 / -	10	15	4,51 €
160-140 / -	13366111 / -	132	132	132	140 / -	160 / -	10	15	2,42 €
200-160 / -	133672 / -	152	152	152	160 / -	200 / -	10	14	6,88 €
200-140 / -	133671 / -	130	130	130	140 / -	200 / -	10	14	9,30 €
225-200 / -	133681 / -	191	191	191	202 / -	226 / -	10	12	8,25 €
225-160 / -	133682 / -	154	154	154	160 / -	226 / -	10	12	15,13 €
250-225 / -	133683 / -	215	215	215	225 / -	250 / -	10	8	19,75 €
315-280 / -	1336086 / -	273	273	273	280 / -	315 / -	10	3	37,95 €
315-250 / -	133693 / -	245	245	245	250 / -	315 / -	10	3	57,20 €
280-250 / -	133686 / -	249	249	249	250 / -	280 / -	10		25,25 €

Reducing Tee



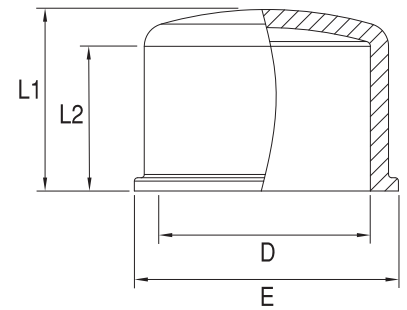
mm	Code	A	E	D	L	Z	PN	Box	Price
50-40	13330051	120	60	40	26	35	16	75	1,24 €
63-50	13330061	145	72	50	34	38	16	75	2,31 €
75-50	13330071	166	85	50	40	44	16	50	6,55 €
75-63	13330072	166	85	63	40	44	16	50	3,26 €
90-63	13330081	200	101	63	49	51	16	30	4,57 €
90-75	13330082	200	101	75	49	51	16	30	4,73 €
110-63	13330091	238	122	63	57	60	16	20	6,60 €
110-75	13330092	238	122	75	57	60	16	20	6,82 €
110-90	13330093	238	122	90	57	60	16	20	7,15 €
125-75	13330101	268	139	75	64	76	16	11	14,04 €
125-90	13330102	268	139	90	64	76	16	11	13,33 €
125-110	13330103	268	139	110	64	76	16	11	11,83 €
140-90	13330111	294	156	90	68	76	16	8	19,48 €
140-110	13330112	294	156	110	68	76	16	8	17,82 €
140-125	13330113	294	156	125	68	76	16	8	24,20 €
160-63	13330121	332	180	63	75	85	16	5	24,08 €
160-75	13330122	332	180	75	75	85	16	5	22,70 €
160-90	13330123	332	180	90	75	85	16	5	22,00 €
160-110	13330124	332	180	110	75	85	16	5	20,90 €
160-125	13330125	332	180	125	75	85	16	5	29,70 €
160-140	13330126	332	180	140	75	85	16	5	40,15 €
200-75	13330131	415	220	75	106	101.5	10	1	38,25 €
200-90	13330132	415	220	90	106	101.5	10	1	37,96 €
200-110	13330133	415	220	110	106	101.5	10	1	36,30 €
200-125	13330134	415	220	125	106	101.5	10	1	40,01 €
200-140	13330135	415	220	140	106	101.5	10	1	38,17 €
200-160	13330136	415	220	160	106	101.5	10	1	35,75 €
225-110	13330141	468	246	110	119	115	10	1	60,06 €
225-125	13330142	468	246	125	119	115	10	1	65,16 €
225-140	13330143	468	246	140	119	115	10	1	63,33 €
225-160	13330144	468	246	160	119	115	10	1	60,91 €
225-200	13330145	468	246	200	119	115	10	1	74,25 €

Cross



D	Code	E	L	Z	PN	Price
32	133321	38.5	23	17	16	3,60 €
40	133322	48	29	23	16	4,12 €
50	133323	59	33	28	16	4,76 €
63	133324	72	38	34	16	7,95 €
75	133325	85	44	41	16	9,40 €
90	133326	101	51	46	16	11,85 €
110	133327	122	61	55	16	23,00 €
125	133328	139	69	67	16	37,50 €
140	133329	156	76	71	16	59,00 €
160	133330	180	86	86	16	75,00 €
200	133331	220	106	101	10	166,00 €
225	133332	246	118	114	10	189,00 €
250	133333	276	131	132	10	303,00 €
280	133334	317	146	152	10	419,00 €
315	133335	352	163	168	10	504,00 €

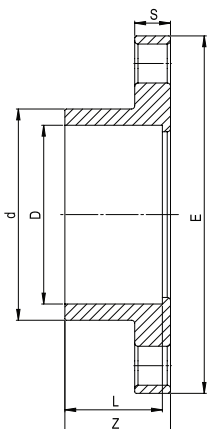
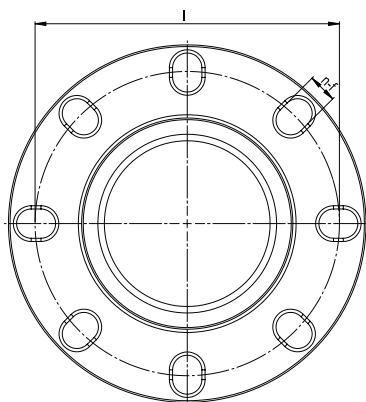
Cap



mm / inch	Code 1 / Code 2	D / ASTM	E	L1	L2	PN	Box	Price
20 / -	133701 / -	20 / -	26	20	16	16	200	0,18 €
25 / -	133702 / -	25 / -	31	26	19	16	1000	0,22 €
32 / -	133703 / -	32 / -	36	32	22	16	600	0,28 €
40 / -	133704 / -	40 / -	46	37	27	16	360	0,35 €
50 / 1-1/2"	133705 / 133705ASTM	50 / 48.3	64	45	30	16	262	0,53 €
63 / 2"	133706 / 133706ASTM	63 / 60.3	80	55	43	16	130	0,63 €
75 / 2-1/2"	133707 / 133707ASTM	75 / 73	86	60	48	16	80	1,07 €
90 / 3"	133708 / 133708ASTM	90 / 88.9	103	67	57	16	46	1,37 €
110 / 4"	133709 / 133709ASTM	110 / 114.3	126	82	66	16	33	2,00 €
125 / -	133711 / -	125 / -	145	118	69	16	20	3,41 €
140 / -	133712 / -	140 / -	163	129	79	16	11	4,29 €
160 / -	133713 / -	160 / -	185	141	89	10	8	7,81 €
200 / -	133714 / -	200 / -	223.5	147	106	10	6	12,43 €
225 / -	133715 / -	225 / -	251	162.5	119	10	5	20,90 €
250 / -	133716 / -	250 / -	279	183	131	10	4	31,90 €
280 / -	133717 / -	280 / -	315	200	140	10	4	45,10 €
315 / -	133718 / -	315 / -	352	228	164	10	-	59,40 €

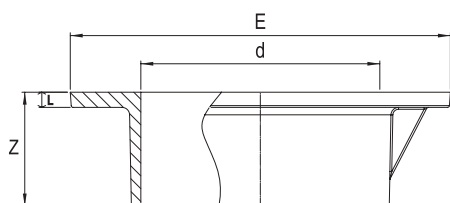
**New
Product**

Fixed Flange

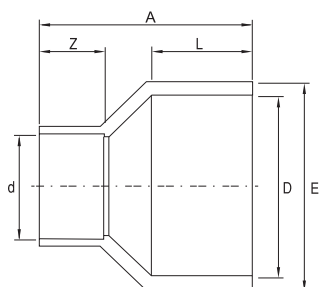


mm/inch	Code 1 / Code 2	D / ASTM	l	d	Z	L	E	S	n-f	PN	Box	Price
90 / 3"	1381008 / 13810082	90 / 88,9	158	108	57	50	201	22	9-18	16	17	3,70 €
110 / 4"	1381009 / 13810092	110 / 114,3	185	130	65	60	220	22	9-18	16	10	6,41 €

Wall Conduit Flange



mm	Code	d	E	L	Z	PN	Price
50	041601	50	80	4	26	16	0,26 €
63	041602	63	100	4	30	16	0,32 €
75	041603	75	111	4	30	16	0,47 €
90	041604	90	129	5	30	16	0,63 €
110	041605	110	149	5	30	16	0,71 €
125	041606	125	164	5	31	16	1,08 €
140	041607	140	180	5	31	16	1,10 €
160	041608	160	199	5	31	16	1,27 €

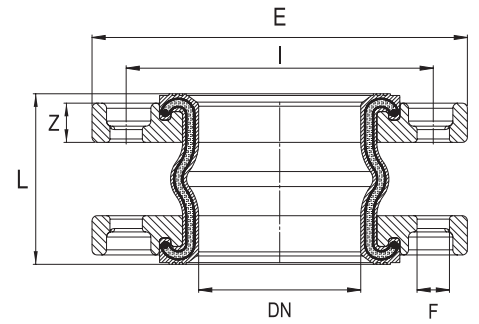


mm	Code	D	d	E	A	L	Z	PN	Box	Price
75-50	1339071	75	50	84	91	44	32,7	16	252	1,43 €
75-63	1339072	79	63	84	94	56	39	16	150	1,65 €
90-63	1339082	90	63	100,2	109,2	53	39	16	88	2,36 €
110-63	1339091	110	63	126,5	129,7	61,7	40,2	16	48	3,80 €
160-110	13390121	161	110	174,6	186,6	86,6	61,2	10	150	12,65 €
200-110	13390131	200	110	219	221	108,5	62,5	10	88	24,07 €

Conical Reduction



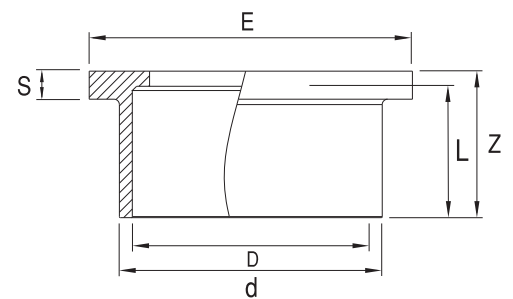
Vibration Flange



Code	D	L	I	E	F	Z	PN	Box	Price
0141110	25	100	85	115	14	16	16	-	40,00 €
0141111	32	100	100	150	19	16	16	-	41,00 €
0141112	40	100	110	150	19	16	16	34	44,00 €
0141113	50	100	125	165	19	18	16	34	52,00 €
0141114	65	100	145	185	19	18	16	23	58,00 €
0141115	80	100	160	200	19	20	16	23	71,00 €
0141116	100	100	180	220	19	20	16	25	81,00 €
0141117	125	120	210	250	19	22	16	-	125,00 €
0141118	150	120	240	285	23	22	16	-	170,00 €
0141119	200	120	295	340	23	24	16	-	240,00 €
0141120	250	115	355	405	26	26	16	-	330,00 €
0141121	300	130	410	460	26	28	10	-	545,00 €
0141122	350	160	470	520	26	30	10	-	1270,00 €
0141123	400	240	515	565	26	26	10	-	2550,00 €
0141124	450	250	565	615	26	28	10	-	*
0141125	500	270	620	670	26	28	10	-	*
0141126	600	260	725	780	30	28	10	-	*

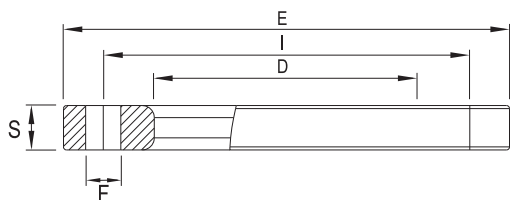
* Ask for price

UPVC Flange Adaptor



mm / inch	Code 1 / Code 2	D / ASTM	d	E	L	Z	S	PN	Box	Price
50 / 1 1/2"	133927 / 133927ASTM	50 / 48.3	60	73	35	38	8	16	200	0,83 €
63 / 2"	133928 / 133928ASTM	63 / 60.3	77	91	38	41	9	16	100	0,85 €
75 / 2 1/2"	133929 / 133929ASTM	75 / 73	90	106	43	46	10	16	70	1,05 €
90 / 3"	133908 / 133908ASTM	90 / 88.9	106	50	121	55	11	16	42	1,37 €
110 / 4"	133909 / 133909ASTM	110 / 114.3	130	62	148	64	11	16	25	2,17 €
125 / -	133910 / -	125 / -	139	69	170	76	14	16	15	3,03 €
140 / -	133911 / -	140 / -	155	75	187	81	15	16	14	3,96 €
160 / -	133912 / -	160 / -	189	84	215	90	16	16	16	5,81 €
200 / -	133913 / -	200 / -	223	105	250	112	25	10	8	8,16 €
225 / -	133914 / -	225 / -	250	119	270	126	25	10	8	8,86 €
250 / -	133915 / -	250 / -	275	132	315	152	20	10	5	36,30 €
280 / -	133916 / -	280 / -	305	147	-	165	20	10	3	34,40 €
315 / -	133917 / -	315 / -	342	164	370.5	185	22	10	3	54,45 €

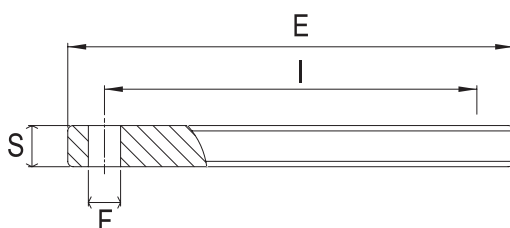
UPVC Flange



mm / inch	Code 1 / Code 2	E	I	D	F	S	PN	Box	Price
50 / 1 1/2"	1331005 / 1331005ASTM	150	110	62	18	16	16	70	1,58 €
63 / 2"	1331006 / 1331006ASTM	165	125	78	18	18	16	60	1,73 €
75 / 2 1/2"	1331007 / 1331007ASTM	185	145	92	18	20	16	50	2,26 €
90 / 3"	1331008 / 1331008ASTM	201	168	110	19	22	16	40	2,52 €
110 / 4"	1331009 / 1331009ASTM	222	180	131	17	22	16	34	2,68 €
125 / -	1331010 / 1331010ASTM	249	212	149	18	24	16	23	3,73 €
140 / -	1331011 / 1331011ASTM	249	212	166	18	24	16	23	3,69 €
160 / 6"	1331012 / 1331012ASTM	283	240	190	22	28	16	25	4,95 €
200 / 8"	1331013 / 1331013ASTM	340	295	226	22	36	10	16	9,55 €
225 / 8"	1331014 / 1331014ASTM	340	318	252	22	36	10	16	9,55 €
250 / -	1331015 / 1331015ASTM	394	330	280	22	38	10	5	46,20 €
280 / 10"	1331016 / 1331016ASTM	400	310	355	25	35	10	3	36,96 €
315 / 12"	1331017 / 1331017ASTM	445	399.5	350.5	22	41.5	10	3	46,89 €



Blind Flange



mm	Code	E	I	D	F	S	PN	Box	Price
50	1331105	150	110	50	18	17	16	-	6,08 €
63	1331106	165	125	63	18	20	16	-	6,71 €
75	1331107	185	145	75	18	21	16	-	7,55 €
90	1331108	201	144	90	19	22	16	34	8,18 €
110	1331109	222	175	110	17	22	16	34	7,88 €
125	1331110	249	193	125	18	24	16	23	10,62 €
140	1331111	249	208	140	18	24	16	23	10,62 €
160	1331112	283	218	160	22	28	16	25	14,85 €
200	1331113	340	295	200	22	32	10	-	39,60 €
225	1331114	340	295	225	22	32	10	-	39,60 €
250	1331115	394	350	250	22	37	10	-	128,70 €
280	1331116	400	355	280	25	35	10	-	128,70 €
315	1331117	445	400	315	22	41.5	10	-	167,20 €



“water technology”





UPVC Unions & Threaded Fittings



Both Side Female Union

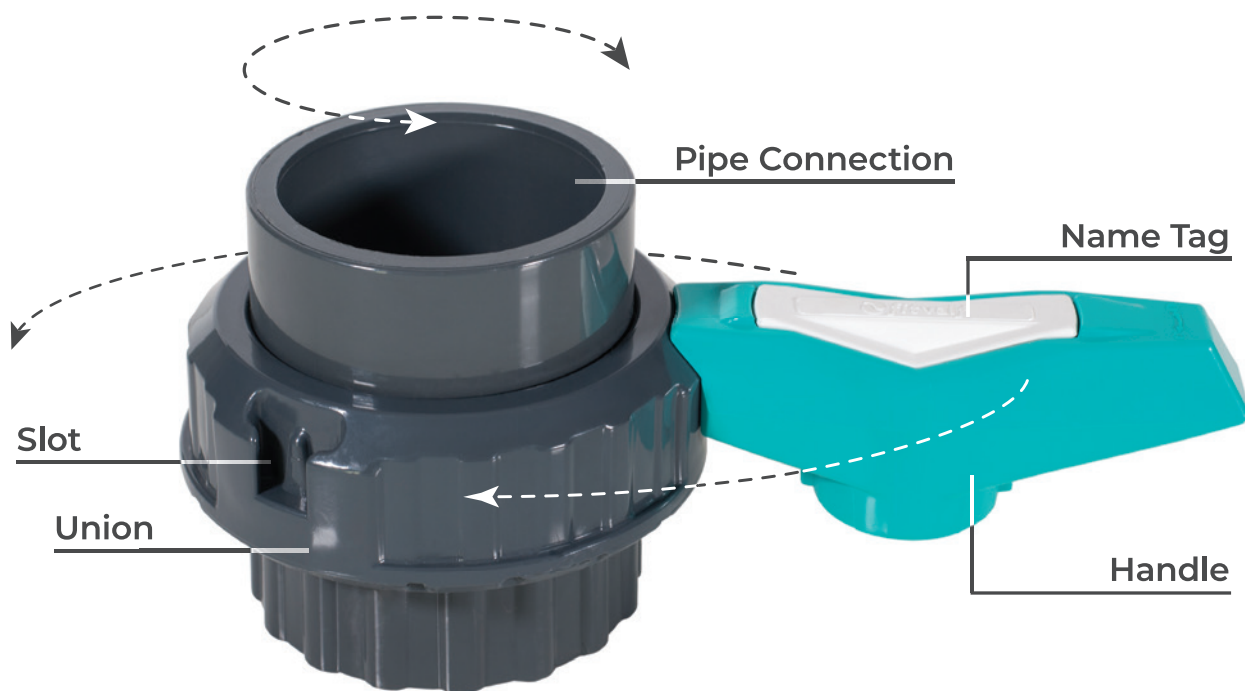
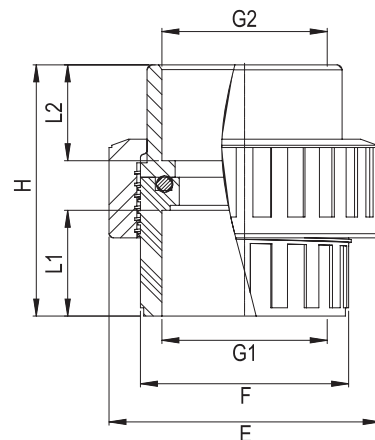
Patented Product



O-Ring from EPDM.

Models Ø63 - Ø110 mm are designed to be used with ball valve handle.

For corrosive liquids, viton gasket is optional.



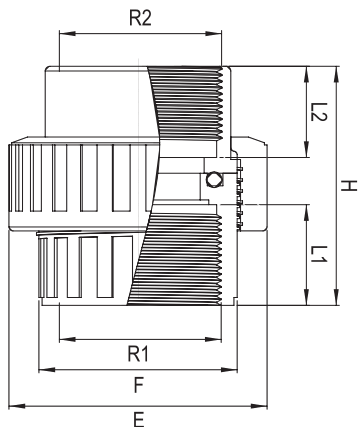
Place the handle to slot and turn the union by handle.

You can use the union without the handle.

mm / inch	Code 1 / Code 2	E	F	G1	G2	H	L1	L2	PN	Box	Price
20 / -	132111 / -	53	32	20 / -	24 / -	50	22	18	16	250	1,35 €
25 / -	132112 / -	61	38	25 / -	29 / -	56	21	23	16	200	1,90 €
32 / -	132113 / -	66	40	32 / -	31 / -	57	21	21	16	150	2,60 €
40 / -	132114 / -	70	50	40 / -	39 / -	71	29	29	16	80	2,85 €
50 / 1-1/2"	132115 / 132115ASTM	82	63	50 / 48.3	50 / 48.3	77	32	31	16	100	3,90 €
63 / 2"	132116 / 132116ASTM	105	80	63 / 60.33	58 / 60.33	92	36	37	16	50	4,60 €
75 / 2-1/2"	132117 / 132117ASTM	110	85	75 / 73	75 / 73	100	45	45	16	60	12,00 €
90 / 3"	132118 / 132118ASTM	156	110	90 / 88.9	90 / 88.9	119	52	52	16	30	16,50 €
110 / -	132119 / -	180	135	110 / -	110 / -	140	61	61	16	20	21,50 €



Both Sided Threaded Union



O-Ring from EPDM.

Models Ø63 - Ø110 mm are designed to be used with ball valve handle.

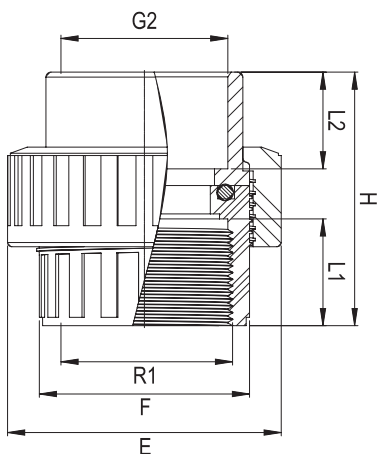
For corrosive liquids, viton gasket is optional.



inch	Code	E	F	R1	R2	H	L1	L2	PN	Box	Price
1/2"	132111T	53	32	1/2"	1/2"	50	22	18	16	250	2,50 €
3/4"	132112T	61	38	3/4"	3/4"	56	21	23	16	200	3,10 €
1"	132113T	66	40	1"	1"	57	21	21	16	150	4,10 €
1-1/4"	132114T	70	50	1-1/4"	1-1/4"	71	29	29	16	80	4,35 €
1-1/2"	132115T	82	63	1-1/2"	1-1/2"	77	32	31	16	100	5,90 €
2"	132116T	105	80	2"	2"	92	36	37	16	50	6,85 €
2-1/2"	132117T	110	85	2-1/2"	2-1/2"	100	45	45	16	60	14,20 €
3"	132118T	156	110	3"	3"	119	52	52	16	30	19,50 €
4"	132119T	180	135	4"	4"	140	61	61	16	20	24,90 €



One Sided Threaded Union



O-Ring from EPDM.

Models Ø63 - Ø110 mm are designed to be used with ball valve handle.

For corrosive liquids, viton gasket is optional.



mm / inch	Code 1 / Code 2	E	F	R1	G2	H	L1	L2	PN	Box	Price
20 / -	132111T1 / -	53	32	1/2"	24 / -	50	22	18	16	250	2,00 €
25 / -	132112T1 / -	61	38	3/4"	29 / -	56	21	23	16	200	2,60 €
32 / -	132113T1 / -	66	40	1"	31 / -	57	21	21	16	150	3,50 €
40 / -	132114T1 / -	70	50	1-1/4"	39 / -	71	29	29	16	80	3,80 €
50 / 1-1/2"	132115T1 / 132115T1ASTM	82	63	1-1/2"	50 / 48.3	77	32	31	16	100	5,00 €
63 / 2"	132116T1 / 132116T1ASTM	105	80	2"	58 / 60.33	92	36	37	16	50	6,00 €
75 / 2-1/2"	132117T1 / 132117T1ASTM	110	85	2-1/2"	75 / 73	100	45	45	16	60	13,50 €
90 / 3"	132118T1 / 132118T1ASTM	156	110	3"	90 / 88.9	119	52	52	16	30	18,00 €
110 / -	132119T1 / -	180	135	4"	110 / -	140	61	61	16	20	23,00 €

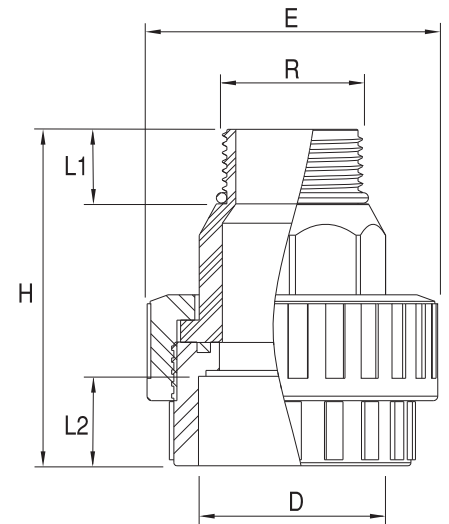
Female Socket / Male Threaded Union



O-Rings from EPDM.

Models Ø63 - Ø110 mm are designed to be used with ball valve handle.

For corrosive liquids, viton gasket is optional.

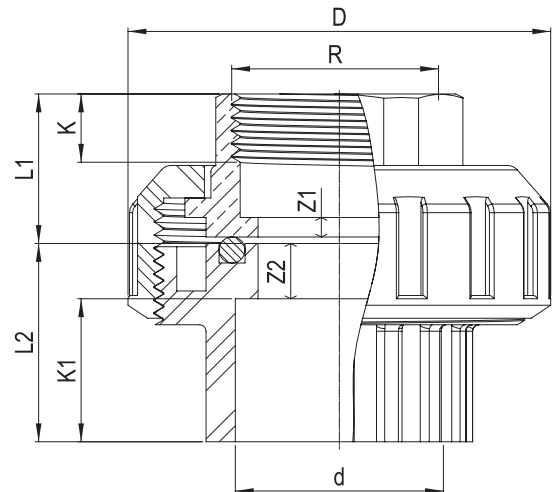


D	Code 1 / Code 2	d / G	E	H	R	L1	L2	PN	Box	Price
50	132121 / 132121ASTM	53 / 48	82	98	1 1/2"	25	32	16	100	4,10 €
63	132122 / 132122ASTM	63 / 59	93	122	2"	32	36	16	50	4,90 €
63	132123 / -	63-R / 48	93	116	1 1/2"	25	31	16	50	4,95 €

Brass Female Threaded Union



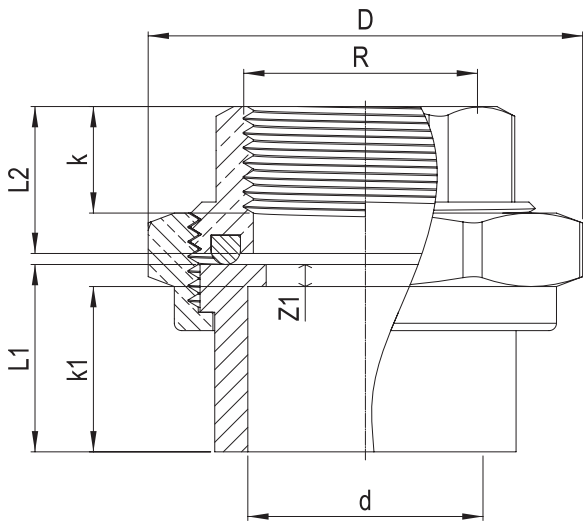
For corrosive liquids, viton gasket is optional.



mm	Code	D	d	R	L1	L2	Z1	Z2	K	K1	PN	Price
20	133460	54	20	1/2"	19	25	3	9	16	16	16	3,85 €
25	133461	62	25	3/4"	21	29	3	11	18	18	16	6,16 €
32	133462	64	32	1"	25	32	3	11	21	22	16	7,94 €
40	133463	85	40	1-1/4"	29	39	3	16	23	26	16	14,41 €
50	133464	92	50	1-1/2"	34	45	3	14	31	31	16	20,39 €
63	133465	112	63	2"	41	55	3	24	31	38	16	32,07 €



Brass Union Female Threaded



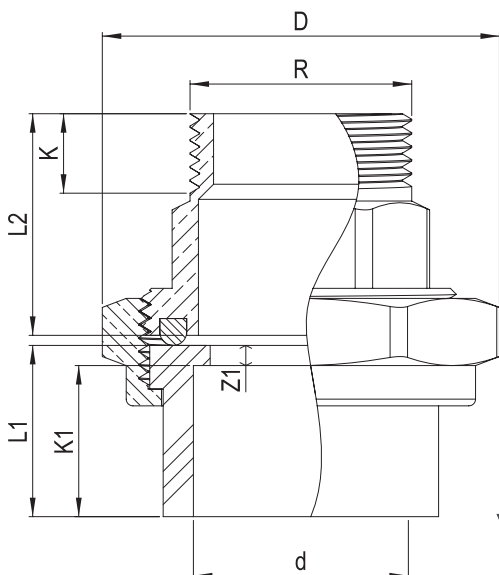
For corrosive liquids,
viton gasket is optional.



mm	Code	D	d	R	L1	L2	Z1	K	K1	PN	Price
20	133450	36	20	20	19	25	3	16	16	16	4,70 €
25	133451	45	25	25	21	29	3	18	18	16	6,60 €
32	133452	51	32	32	25	32	3	21	22	16	8,19 €
40	133453	64	40	40	29	39	3	23	26	16	18,37 €
50	133454	80	50	50	34	45	3	31	31	16	24,03 €
63	133455	98	63	63	41	55	3	31	38	16	40,70 €



Brass Male Threaded Union



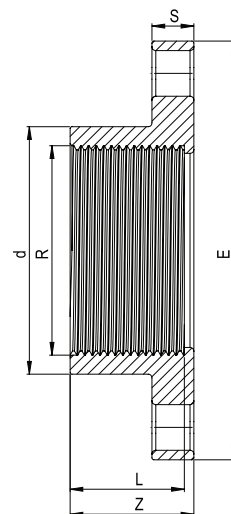
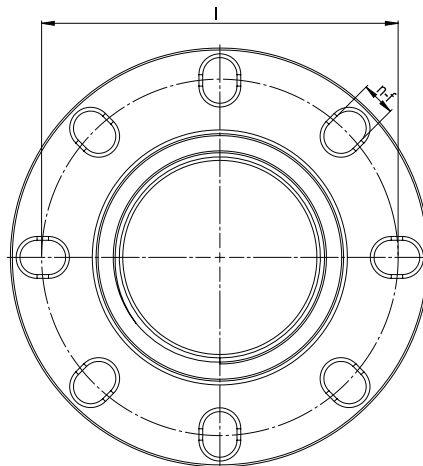
For corrosive liquids,
viton gasket is optional.



mm	Code	D	d	R	L1	L2	Z1	K	K1	PN	Price
20	133470	36	20	1/2"	19	22	3	16	16	16	5,13 €
25	133471	45	25	3/4"	21	24	3	18	18	16	7,15 €
32	133472	51	32	1"	25	33	3	21	22	16	9,13 €
40	133473	64	40	1-1/4"	29	39	3	23	26	16	17,71 €
50	133474	80	50	1-1/2"	34	39	3	31	31	16	26,62 €
63	133475	98	63	2"	41	40	3	31	38	16	41,80 €

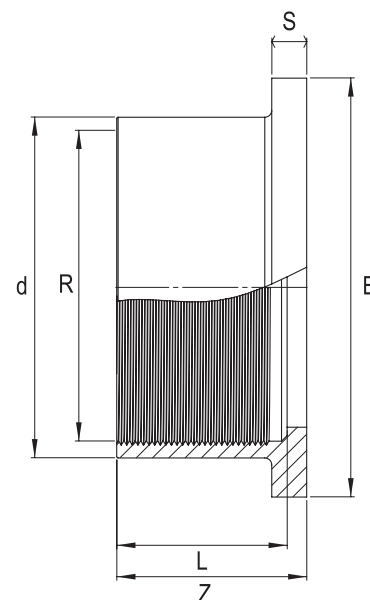
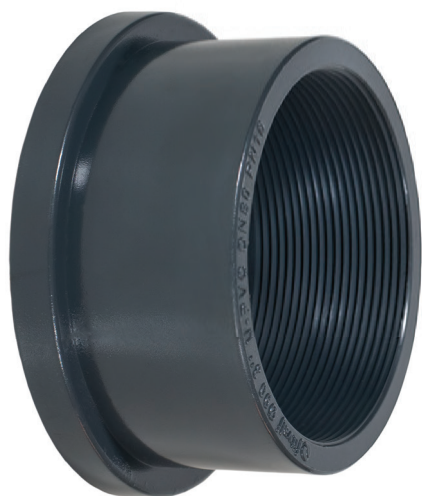
Threaded Fix Flange

New Product



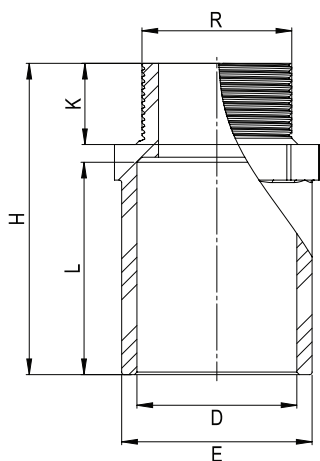
mm/inch	Code	R	I	d	Z	L	E	S	n-f	PN	Price
90 / 3"	1381008T	3"	158	108	57	50	201	22	9-18	16	6,90 €
110 / 4"	1381009T	4"	185	130	65	60	220	22	9-18	16	7,70 €

Female Threaded Flange Adaptor



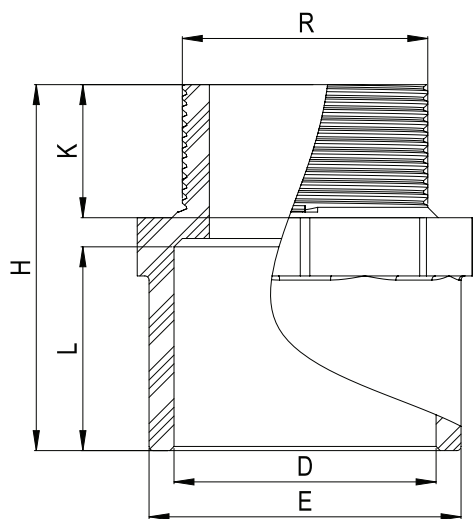
mm / inch	Code	R	d	E	L	Z	S	PN	Price
50 / 1 1/2"	133927T	1 1/2"	60	73	35	38	8	16	2,10 €
63 / 2"	133928T	2"	77	91	38	41	9	16	2,36 €
75 / 2 1/2"	133929T	2 1/2"	90	106	43	46	10	16	4,15 €
90 / 3"	133908T	3"	106	50	121	55	11	16	4,57 €
110 / 4"	133909T	4"	130	62	148	64	11	16	5,25 €
125 / 4 1/2"	133910T	4 1/2"	139	69	170	76	14	16	7,35 €
140 / 5"	133911T	5"	155	75	187	81	15	16	9,45 €
160 / 6"	133912T	6"	189	84	215	90	16	16	13,65 €
200 / 7"	133013T	7"	223	105	250	112	25	10	19,48 €
225 / 8"	133914T	8"	250	119	270	126	25	10	21,16 €

Adaptor Nippel - Long



mm	Code	E	H	D	L	K	R	PN	Box	Price
50	133505U	63	96	50	60	22	1-1/2"	16	125	1,26 €
63	133506U	75	115	63	70	30	2"	16	70	1,72 €
75	133507U	85	132	75	87	30	2-1/2"	16	80	2,96 €
90	133508U	100	158	90	108	35	3"	16	40	4,35 €
110	133509U	125	164	110	94	40	4"	16	30	4,96 €

Adaptor Nippel

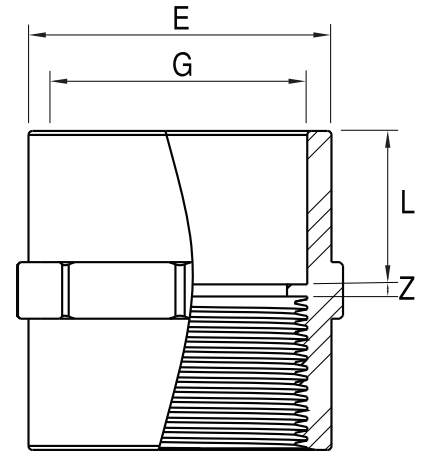


mm / inch	Code 1 / Code 2	E	H	D / ASTM	L	K	R	PN	Box	Price
20 / -	133501 / -	25	39	20 / -	17	17	1/2"	16	350	0,24 €
25 / -	133502 / -	31	43	25 / -	19	20	3/4"	16	350	0,30 €
32 / -	133503 / -	39	49	32 / -	23	21	1"	16	300	0,35 €
40 / -	133504 / -	47	54	40 / -	27	22	1-1/4"	16	200	0,74 €
50 / 1-1/2"	133505 / 133505ASTM	63	77	50 / 48.3	43	30	1-1/2"	16	156	0,95 €
63 / 2"	133506 / 133506ASTM	75	88	63 / 60.3	51	32	2"	16	116	1,42 €
75 / 2 1/2"	133507 / 133507ASTM	90	98	75 / 73	58	31	2-1/2"	16	120	1,94 €
90 / 3"	133508 / 133508ASTM	110	110	90 / 88.9	73	31	3"	16	75	3,31 €
110 / -	133509 / -	125	120	110 / -	70	40	4"	16	36	4,25 €

Female Threaded Adaptor

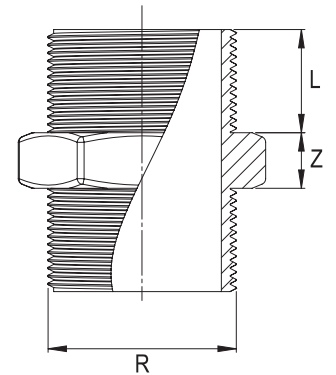


One side female threaded.



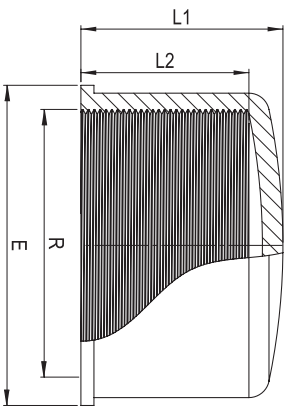
mm / inch	Code 1 / Code 2	E	G	Z	PN	L	Box	Price
20 / -	133402 / -	25	20 / -	4	16	18	400	0,25 €
25 / -	133403 / -	31	25 / -	4	16	19	400	0,28 €
32 / -	133404 / -	38	32 / -	3	16	22	350	0,32 €
40 / -	133401 / -	47	40 / -	3	16	28	200	0,63 €
50 / 1-1/2"	133405 / 133405ASTM	61	50 / 48.3	3	16	28	120	0,89 €
63 / 2"	133406 / 133406ASTM	75	63 / 60.3	3	16	38	87	1,26 €
75 / 2-1/2"	133407 / 133407ASTM	89	75 / 73	3	16	44	120	1,94 €
90 / 3"	133408 / 133408ASTM	106	90 / 88.9	3	16	51	60	2,42 €
110 / -	133409 / -	129	110 / -	4	16	60	44	3,89 €

Nippel



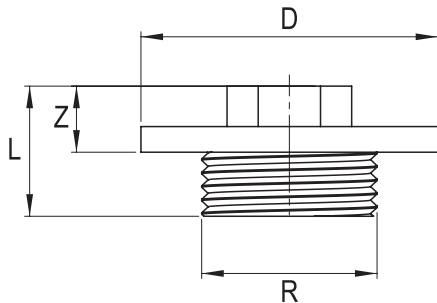
mm / inch	Code	R	L	Z	PN	Price
20 / 1/2"	1111080	1/2"	16	8	16	0,48 €
25 / 3/4"	1111081	3/4"	18	10	16	0,53 €
32 / 1"	1111082	1"	22	12	16	0,64 €
40 / 1-1/4"	1111083	1-1/4"	23	14	16	0,95 €
50 / 1-1/2"	1111084	1-1/2"	26	14	16	0,95 €
63 / 2"	1111085	2"	21	12	16	1,06 €
75 / 2 1/2"	1111086	2 1/2"	24	12	16	1,75 €
90 / 3"	1111087	3"	26	14	16	2,45 €
110 / 4"	1111088	4"	32	16	16	3,76 €
125 / 4 1/2"	1111089	4 1/2"	44	40	16	13,85 €
140 / 5"	1111090	5"	44	50	16	15,55 €
160 / 6"	1111091	6"	50	50	10	23,00 €
200 / 7"	1111092	7"	55	50	10	32,50 €

Female Threaded Cap



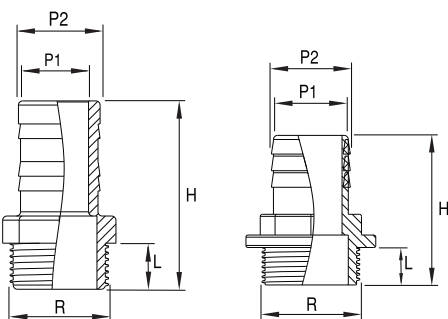
mm / inch	Code	R	E	L1	L2	PN	Price
50 / 1-1/2"	133705T	1 1/2"	64	45	30	16	1,16 €
63 / 2"	133706T	2"	80	55	43	16	1,68 €
75 / 2-1/2"	133707T	2 1/2"	86	60	48	16	2,89 €
90 / 3"	133708T	3"	103	67	57	16	4,04 €
110 / 4"	133709T	4"	126	82	66	16	5,20 €
125 / 4-1/2"	133711T	4 1/2"	145	118	69	16	7,30 €
140 / 5"	133712T	5"	163	129	79	16	9,45 €
160 / 6"	133713T	6"	188	141	89	10	13,65 €
200 / 7"	133714T	7"	223,5	147	106	10	19,43 €
225 / 8"	133715T	8"	251	162,5	119	10	21,16 €

Male Threaded Cap



mm / inch	Code	R	D	L	Z	PN	Price
75 / 2-1/2"	133722	2 1/2"	75	29	12	16	2,57 €
90 / 3"	133723	3"	90	33	16	16	4,35 €
110 / 4"	133724	4"	110	43	17	16	6,09 €

Hose Connection



D	Code	R	H	L	P1	P2	PN	BOX	Price
38	136115	1-1/2"	72	18	30	38	16	12	2,45 €
38	136215	1-1/2"	91	22	30	38	16	12	2,45 €

“water technology”





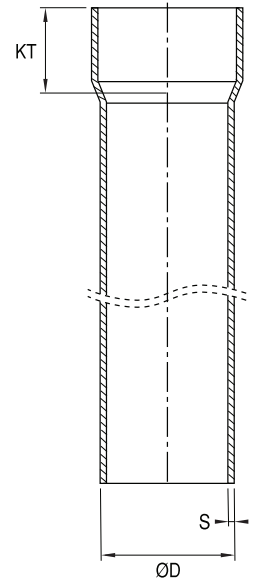
UPVC Pipes



UPVC PIPES

UPVC Clean Water Pipes have plane and smooth surface. They can stand atmospheric conditions and pressure. They are suitable for all kinds of liquid transfer because of their high resistance against chemicals. They are produced appropriate for TS 274, EN 1452 and DIN 8062, 19532 norms. Hard UPVC Clean Water Pipes are the most preferred products in drinking water transfer since there are strong, sanitary, easy to install and transport. Our company which gives value to quality, make all necessary tests and analysis frequently for these pipes in laboratories.

External Diameter (D)	Code (6 BAR)	6 BAR s (mm)	Price	Code (10 BAR)	10 BAR s (mm)	Price	Code (16 BAR)	16 BAR s (mm)	Price
20	-	-	-	-	-	-	1391601	1,5	0,78 €
25	-	-	-	1391001	-	0,96 €	1391602	1,9	1,25 €
32	-	-	-	1391002	1,6	1,40 €	1391603	2,4	2,00 €
40	-	-	-	1391003	1,9	2,04 €	1391604	3,0	3,08 €
50	1390601	1,5	2,12 €	1391004	2,4	3,24 €	1391605	3,7	4,76 €
63	1390602	1,9	3,32 €	1391005	3,0	5,03 €	1391606	4,7	7,59 €
75	1390603	2,2	4,61 €	1391006	3,6	7,20 €	1391607	5,6	10,74 €
90	1390604	2,7	6,66 €	1391007	4,3	10,29 €	1391608	6,7	15,38 €
110	1390605	2,7	7,94 €	1391008	4,2	12,48 €	1391609	6,6	18,87 €
125	1390606	3,1	10,29 €	1391009	4,8	16,08 €	1391610	7,4	24,08 €
140	1390607	3,5	12,81 €	1391010	5,4	20,28 €	1391611	8,3	30,24 €
160	1390608	4,0	16,67 €	1391011	6,2	26,60 €	1391612	9,5	39,50 €
200	1390609	4,9	25,76 €	1391012	7,7	41,13 €	1391613	11,9	61,31 €
225	1390610	5,5	32,73 €	1391013	8,6	51,72 €	1391614	13,4	77,61 €
250	1390611	6,2	40,31 €	1391014	9,6	64,22 €	1391615	14,8	95,43 €
280	1390612	6,9	50,63 €	1391015	10,7	80,88 €	1391616	16,6	120,21 €
315	1390613	7,7	63,99 €	1391016	12,1	100,50 €	1391617	18,7	152,00 €
355	1390614	8,7	81,95 €	1391017	13,6	128,04 €	1391618	21,1	194,24 €
400	1390615	9,8	103,62 €	1391018	15,3	161,78 €	1391619	23,7	247,25 €



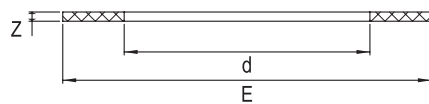
Resistance against chemical materials.

UPVC Clean water pipes are suitable for all kinds of liquid transfer because of their high resistance against chemicals.

The table below shows few examples of chemicals which our pipes can stand.

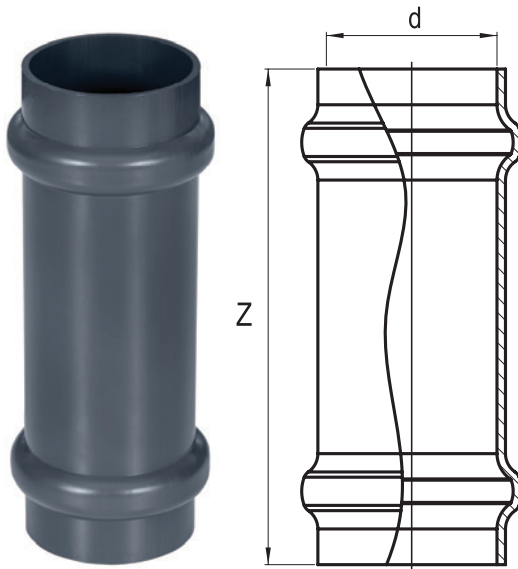
Chemical Name	20 °C	50 °C
Acetic Acid	D	D
Gas / Petrol	D	D
Hydrochloric Acid	D	D
Nitric Acid	D	D
Sulfuric Acid	D	D

EPDM Flat Gasket



D	Code	d	E	Z	Price
63	13390799	51	77	3	6,30 €
75	13390800	65	95	3	6,60 €
90	13390801	80	120	3	6,90 €
110	13390802	102	149	5	7,50 €
125	13390803	112	164	4	8,10 €
140	13390804	130	184	3	8,48 €
160	13390805	150	210	4	9,15 €
200	13390806	190	250	5	10,50 €
225	13390807	200	265	4	11,48 €

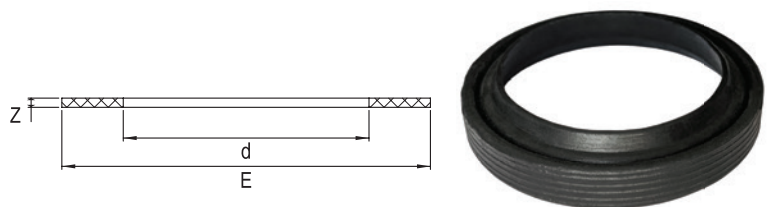
UPVC Double Socket Sleeve



Code	d	Z	Price
133850	50	195 ±10	1,40 €
133851	63	200 ±10	2,25 €
133852	75	205 ±10	3,50 €
133853	90	237 ±10	4,90 €
133854	110	290 ±10	7,98 €
133855	125	278 ±10	13,79 €
133856	140	186 ±10	17,92 €
133857	160	308 ±10	25,66 €
133858	200	335 ±10	39,00 €
133859	225	376 ±10	55,00 €
133860	250	405 ±10	74,00 €
133861	280	460 ±10	100,00 €
133862	315	516 ±10	133,00 €
133863	355	562 ±10	198,00 €
133864	400	602 ±10	287,00 €

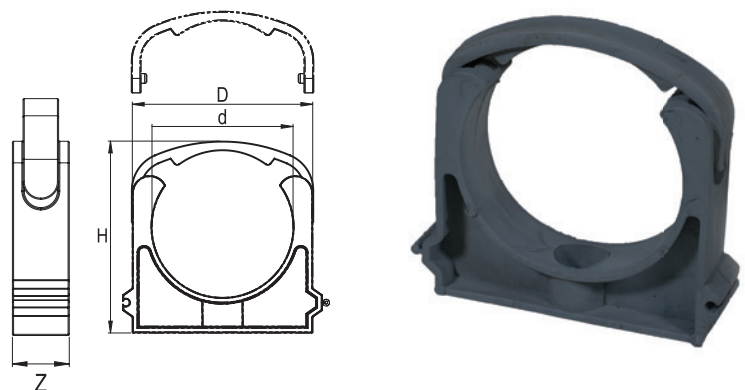
Gasket for Double Socket Sleeve

D	Code	d	E	Z	Price
50	13385001	51	77	3	0,80 €
63	13385101	51	77	3	0,87 €
75	13385201	65	95	3	1,19 €
90	13385301	80	120	3	1,34 €
110	13385401	102	149	5	1,89 €
125	13385501	112	164	4	2,97 €
140	13385601	130	184	3	3,14 €
160	13385701	150	210	4	3,78 €
200	13385801	190	250	5	5,82 €
225	13385901	200	265	4	8,28 €



UPVC Pipe Clamp

d	Code	D	H	Z	Price
20	133350	31	29	15	0,09 €
25	133351	35	60	16	0,10 €
32	133352	49	40	14	0,16 €
40	133353	54	46	19	0,18 €
50	133354	67	66	18	0,25 €
63	133355	91	101	25	0,53 €
75	133356	93	101	23	0,67 €
90	133357	136	138	25	1,02 €
110	133358	135	126	23	1,05 €
125	133359	159	159	25	1,63 €
140	133360	197	207	30	2,13 €
160	133361	240	235	30	2,81 €



“water technology”





Technical Consumables



UPVC Solvent Cements



Industrial grade, high strength UPVC cement for large diameter applications or where more working time is required.

Also recommended for hot weather applications.

Heavy body formulation delivers superior gap filling capacity between pipe & fittings.

For pipe sizes with interference fit through 12" all classes and schedules. For use on non-pressure applications through 18". All pots are with brush applicator. Please ask price for pots without brush.

UPVC pipe and fitting applications : potable water, pressure, non-pressure, conduit, drain, duct, DWV and sewer.

Code	Description	Color	Net Filling	Box	Price
13525	Heavy Duty PVC Solvent Cement	Transparent	1000 ml	12	22,00 €
13523	Heavy Duty PVC Solvent Cement	Transparent	500 ml	12	14,50 €
13522	Heavy Duty PVC Solvent Cement	Transparent	250 ml	24	9,00 €
13521	Heavy Duty PVC Solvent Cement	Transparent	125 ml	-	7,20 €
13530	Gel Solvent Cement for Flexible PVC Pipes	Blue	500 ml	24	13,75 €

APPLICATION



Step 1

Measure the length of the pipe and mark this with a permanent marker.



Step 2

Saw off the pipe at a right angle to the correct length with a PVC saw or use the Cable saw for places that are difficult to reach.



Step 3

Chamfer the end of the pipe ($x=15$) with a chamfering tool. For diameters ≤ 63 mm. This is done to ensure a better distribution of the cement, to prevent scrapping away the cement and to create a locating edge for easier assembly.



Step 4

Deburr the inside of the end of the pipe with the Deburring tool. This ensures that the pipe end is smooth and whole.



Step 5

Mark the insertion depth (the bonding surface) on the pipe. This is important so that excess adhesive is not applied to the pipe, which can corrode the pipe and weaken the joint.



Step 6

Mark the correct assembly position of the fitting. Once the joint is made, it cannot be adjusted.



Step 7

Clean the inside of the fitting with fitvalf Cleaner and the Cleaner Cloth (lint-free cloth). Cleaning ensures a dirt- and grease-free surface and also provides a chemical pretreatment (pre-soak) for a better bonding. Let the parts dry properly to reduce the chance of condensation.



Step 8

Clean the outside of the pipe with Fitvalf Cleaner and the Cleaner Cloth (lint-free cloth).



Step 9

Apply the cement to the fitting using the special brush (integrated in the cap). The brush which is most suitable for the pipe diameter should be used. Apply a thin layer in the fitting and a somewhat thicker layer to the pipe end. Do not use too much of the cement.



Step 10

Apply the cement to the pipe. This sequence (steps 9 & 10) is important because the pipe must otherwise be laid on the (dirty) ground once again.



Step 11

Assemble the joint immediately in a flowing, even movement. For a good joint, an even closed ring of cement is now visible at the transition from the pipe to the fitting.



Step 12

Remove superfluous cement immediately with the Griffon Cleaner Cloth. Superfluous cement can corrode the pipe and thus weaken it.

UPVC Weld-Rods



Code	D	kg/BOX	Price
13600	3	2	16,50 €
13601	4	2	16,50 €
13602	5	2	16,50 €
13603	6	2	16,50 €
13604	7	2	16,50 €
13605	8	2	16,50 €
13606	9	2	16,50 €
13607	10	2	16,50 €
13608	12	2	16,50 €

UPVC / ABS Cleaner



Product Details

For cleaning and degreasing piping, sleeves and fittings made of (rigid) UPVC and ABS. Also suitable for removing uncured adhesive residue and for cleaning brushes and tools.

Code	Description	Color	Net Filling	Package	Price
13541	UPVC / ABS Cleaner	Transparent	100 ml	6	2,31 €
13542	UPVC / ABS Cleaner	Transparent	250 ml	24	5,50 €
13543	UPVC / ABS Cleaner	Transparent	500 ml	12	9,90 €
13544	UPVC / ABS Cleaner	Transparent	1000 ml	6	19,50 €

UPVC Repairing Kit

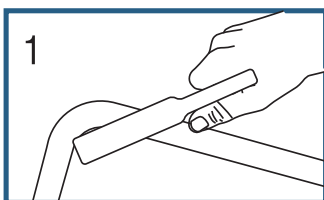


Product Details

Multipurpose repairing epoxy resin for dry and underwater-wet applications.

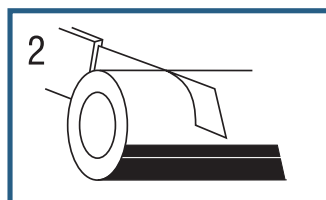
Code	Description	Net Filling	Package	Price
13551	Aquakit	57 gr	1	7,70 €

APPLICATION



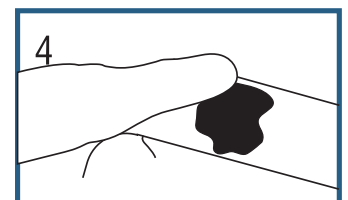
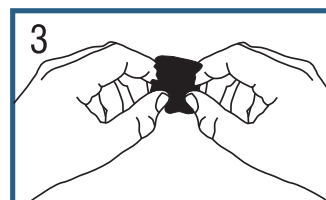
Step 1

Make surface rough with sandpaper or steel brush.



Step 2 - 3

Tear off required quantity and knead it until you get a single colour (±1 minute)



Step 4

Apply on the required spot.

Pumps



Fitvalf Streamer 2010



Product Details

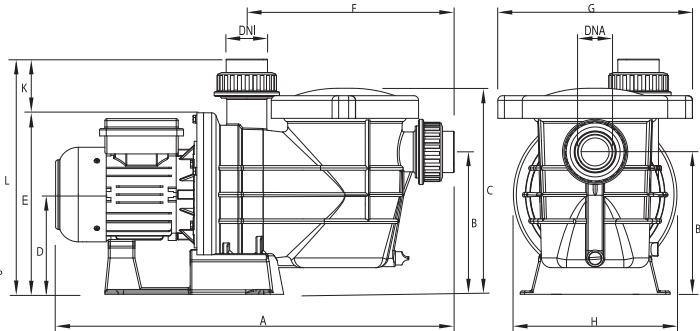
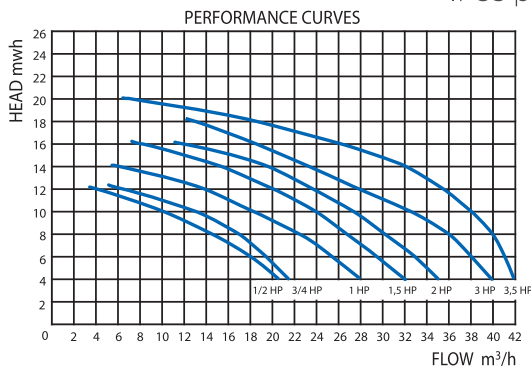
The Streamer Pumps are precision, injection - moulded units, using a temperature and corrosion resistant fibre glass low dense plastic. The difference between Streamer 2010 and other pumps lies in their incomparable performance.

Characteristics

Monoblock pump body, in 30% fiberglasspolypropylene for protection againts corrosivewater. Housed inside is a PREFILTERING BASKET in TWO PARTS that has a large filtering surfaceand is easy to remove and to clean. High quality steel shaft and mechanical seal. Noryl ultrasound soldered impeller.

Motor

IP55 protected. 230V or 230/400V - 50Hz. 2850 rpm.



Pump Type	HP	CON-DAN-SATOR (µF)	AMPERES			HEAD mwh									
			II	III	400V	4	6	8	10	12	14	16	18	20	
STRN-50M/T	0,50	16	2,73	-	-	20,50	18,00	14,30	10,00	4,00	-	-	-	-	-
STRN-75M/T	0,75	20	3,88	2,33	1,35	21,70	19,50	17,00	13,00	6,00	-	-	-	-	-
STRN-100M/T	1,00	25	5,15	3,03	1,75	28,00	25,70	22,50	18,00	13,90	6,00	-	-	-	-
STRN-150M/T	1,50	30	7,02	4,42	2,55	32,00	29,70	26,50	24,00	20,00	15,50	8,00	-	-	-
STRN-200M/T	2,00	40	8,60	5,50	3,50	35,00	33,00	30,00	27,50	23,80	19,50	12,00	-	-	-
STRN-300M/T	3,00	40	9,80	6,01	3,90	40,00	38,00	36,00	32,40	27,60	23,20	18,50	13,00	-	-
STRN-350M/T	3,50	60	13,67	8,61	4,98	42,00	41,00	40,00	38,00	35,50	32,00	26,40	18,50	7,10	-

Pump Type	DIMENSION (mm)											Net Weight(kg)		Packing W. (kg)		
	DNA	DNI	A	K	B	C	D	E	F	G	H	L	Mo.	Tri.	Mo.	Tri.
STRN-50M/T	1 1/2"	1 1/2"	610	80	205	310	145	275	320	292	245	355	10,290	-	11,514	-
STRN-75M/T	2"	1 1/2"	610	80	205	310	145	275	320	292	245	355	11,234	-	12,484	-
STRN-100M/T	2"	1 1/2"	610	80	205	310	145	275	320	292	245	355	12,360	11,000	13,609	12,244
STRN-150M/T	2"	2"	630	80	205	310	145	275	320	292	245	355	15,095	14,420	16,344	15,669
STRN-200M/T	2"	2"	630	80	205	310	145	275	320	292	245	355	17,150	16,280	17,534	18,404
STRN-300M/T	2"	2"	630	80	205	310	145	275	320	292	245	355	17,150	16,280	17,534	18,404
STRN-350M/T	2"	2"	670	80	205	310	145	275	320	292	245	355	20,450	19,130	20,384	21,704

Pump Type	STRN-50T/M	STRN-75T/M	STRN-100T/M	STRN-150T/M	STRN-200T/M	STRN-300T/M	STRN-350T/M
Ø SUCTION PIPE	1 1/2" (Ø50mm)	2" (Ø63mm)	2" (Ø63mm)	2 1/2" (Ø75mm)	3" (Ø90mm)	3" (Ø90mm)	4" (Ø110mm)

Description	Code	Pieces	Weight (kg)	Volume(m³)	Price
STRN-50M 1/2 HP, Monophase	0111STRN50M	1	11.514	0.051	332,00 €
STRN-80M 3/4 HP, Monophase	0111STRN75M	1	12.484	0.051	354,00 €
STRN-80T 3/4 HP, Triphase	0111STRN75T	1	11.754	0.051	354,00 €
STRN-100M 1 HP, Monophase	0111STRN100M	1	13.609	0.051	370,00 €
STRN-100T 1 HP, Triphase	0111STRN100T	1	12.244	0.051	370,00 €
STRN-150M 1,5 HP, Monophase	0111STRN150M	1	16.344	0.051	442,00 €
STRN-150T 1,5 HP, Triphase	0111STRN150T	1	15.669	0.051	442,00 €
STRN-200M 2,0 HP, Monophase	0111STRN200M	1	18.404	0.051	491,00 €
STRN-200T 2,0 HP, Triphase	0111STRN200T	1	17.534	0.051	470,00 €
STRN-300M 3,0 HP, Monophase	0111STRN300M	1	18.404	0.051	527,00 €
STRN-300T 3,0 HP, Triphase	0111STRN300T	1	17.534	0.051	494,00 €
STRN-350M 3,5 HP, Monophase	0111STRN350M	1	21.704	0.054	779,00 €
STRN-350T 3,5 HP, Triphase	0111STRN350T	1	20.384	0.054	736,00 €

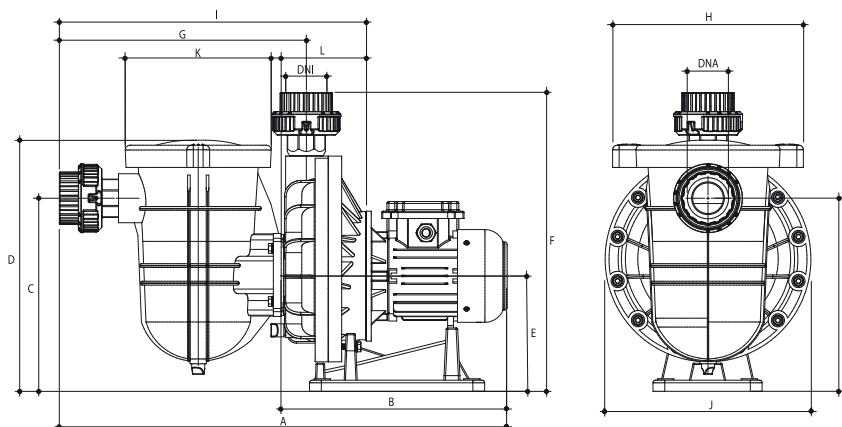
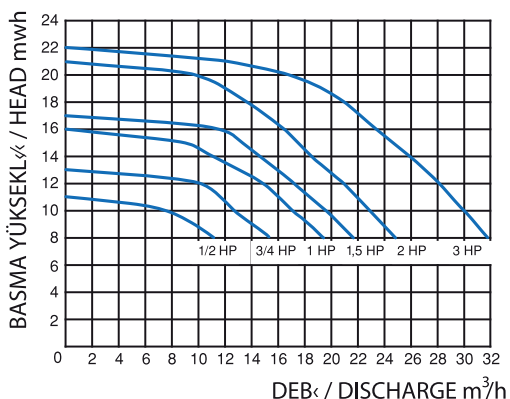
Fitvalf Pumpex 2010

Product Details

Self-priming, thermoplastic body Monoblock Pool Pump; complete with pre-filter. Up to 1 1/2 HP, Suction 1 1/2". Discharge 2"; bigger sizes both 2". Connections are with unions. Easy opening lid with 40° turning. "Xylex" lid option against aggressive chemicals. Larger basket. 2850 rpm - IP 55 Motor. **Pump shaft in AISI 316 quality stainless steel.**



PERFORMANS ER-S / PERFORMANCE CURVES



Pump Type	HP	CON-DAN-SATOR (µF)	AMPERES			HEAD mwh									
			II 230V	III 230V	380V	8	10	12	14	15	16	18	20		
PX-50M	0,50	13	2,60	-	-	11,14	7,25	-	-	-	-	-	-	-	-
PX-75T/M	0,75	20	3,80	3,70	-	15,33	12,64	10,00	-	-	-	-	-	-	-
PX-100T/M	1,00	25	4,95	3,11	1,80	19,43	17,00	14,84	11,00	8,89	-	-	-	-	-
PX-150T/M	1,50	30	7,80	4,41	2,55	21,65	19,47	17,12	14,57	13,30	11,36	-	-	-	-
PX-200T/M	2,00	40	9,90	5,88	3,40	24,80	22,90	20,90	18,40	17,50	16,40	13,60	9,60	-	-
PX-300T/M	3,00	40	-	8,00	4,90	32,00	30,00	28,00	26,00	25,00	23,50	21,00	17,00	-	-

Pump Type	DNA	DNI	DIMENSION (mm)											Net Weight(kg)		
			A	B	C	D	E	F	G	I	H	J	K	L	Mo.	Tri.
PX-50M	2"	1 1/2"	715	375	295	384	176	460	382	480	292	315	223	135	16,500	-
PX-75T/M	2"	1 1/2"	715	375	295	384	176	460	382	480	292	315	223	135	17,420	-
PX-100T/M	2"	1 1/2"	715	375	295	384	176	460	382	480	292	315	223	135	18,620	17,420
PX-150T/M	2"	1 1/2"	735	395	295	384	176	460	382	480	292	315	223	135	18,520	19,420
PX-200T/M	2"	1 1/2"	735	395	295	384	176	460	382	480	292	315	223	135	23,420	21,420
PX-300T/M	2"	1 1/2"	735	395	295	384	176	460	382	480	292	315	223	135	24,120	24,420

Pump Type	Packing Dimensions
PX - 50 / 75 / 100 / 150 / 200 / 300	660 x 340 x 390

Description	Code	Pieces	Weight (kg)	Volume(m³)	Price
PUMPEX-50M 0,50 HP, Monophase	0111PX50M	1	19.12	0.096	366,00 €
PUMPEX-75M 0,75 HP, Monophase	0111PX75M	1	20.32	0.096	389,00 €
PUMPEX-75T 0,75 HP, Triphase	0111PX75T	1	19.12	0.096	389,00 €
PUMPEX-100M 1 HP, Monophase	0111PX100M	1	20.32	0.096	407,00 €
PUMPEX-100T 1 HP, Triphase	0111PX100T	1	19.12	0.096	407,00 €
PUMPEX-150M 1,5 HP, Monophase	0111PX150M	1	20.12	0.096	485,00 €
PUMPEX-150T 1,5 HP, Triphase	0111PX150T	1	21.12	0.096	485,00 €
PUMPEX-200M 2 HP, Monophase	0111PX200M	1	25.12	0.096	540,00 €
PUMPEX-200T 2 HP, Triphase	0111PX200T	1	23.12	0.096	516,00 €
PUMPEX-300M 3 HP, Monophase	0111PX300M	1	26.12	0.096	580,00 €
PUMPEX-300T 3 HP, Triphase	0111PX300T	1	26.12	0.096	544,00 €

Fitvalf Pumpex Jet

Product Details

GEMAŞ Pumpex-Jet thermoplastic body countercurrent pump. Ideal for usage with jet nozzles, counter current systems, fountains or similar water attractions.

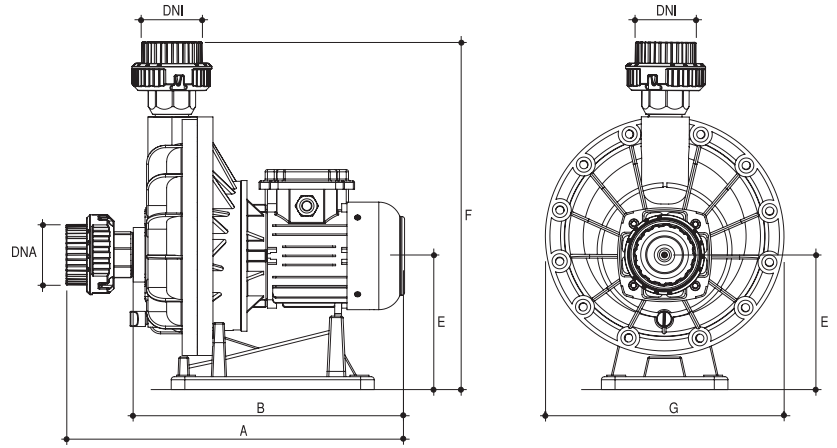
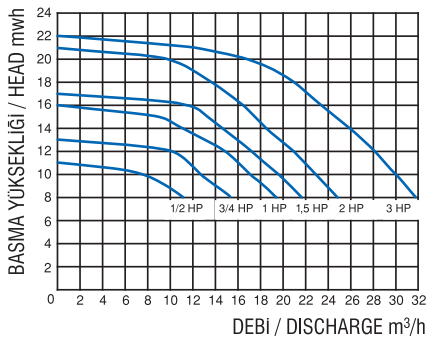
- 2850 rpm – IP55 motor
- Pump shaft in AISI 316 quality stainless steel
- Suction 2", Return 1 1/2" connection. Connections are with unions
- Body made of fiber glass reinforced PP

* This product can be ordered as version "industrial" for corrosive liquid applications.

In such pumps, special mechanical seal and viton o-rings are used.



PERFORMANS EĞRISI / PERFORMANCE CURVES



Pump Type	HP	CON-DAN-SATOR (µF)	AMPERES			HEAD mwh										
			230V	230V	380V	8	10	12	14	15	16	18	20			
			DISCHARGE m³/h													
PXJ-50M	0,50	13	2,60			11,14	7,25	-	-	-	-	-	-	-	-	-
PXJ-75T/M	0,75	20	3,80	3,70	-	15,33	12,64	10,00	-	-	-	-	-	-	-	-
PXJ-100T/M	1,00	25	4,95	3,11	1,80	19,43	17,00	14,84	11,00	8,89	-	-	-	-	-	-
PXJ-150T/M	1,50	30	7,80	4,41	2,55	21,65	19,47	17,12	14,57	13,30	11,36	-	-	-	-	-
PXJ-200T/M	2,00	40	9,90	5,88	3,40	24,80	22,90	20,90	18,40	17,50	16,40	13,60	9,60	-	-	-
PXJ-300T/M	3,00	40	-	8,00	4,90	32,00	30,00	28,00	26,00	25,00	23,50	21,00	17,00	-	-	-

Pump Type	DIMENSION (mm)															Net Weight(kg)	
	DNA	DNI	A	B	C	D	E	F	G	I	H	J	K	L	M	Tri.	
PXJ-50M	2"	1½"	470	375	295	384	176	460	287	384	292	315	135	223	16,500	-	
PXJ-75T/M	2"	1½"	470	375	295	384	176	460	287	384	292	315	135	223	17,420	-	
PXJ-100T/M	2"	1½"	470	375	295	384	176	460	287	384	292	315	135	223	18,620	17,420	
PXJ-150T/M	2"	1½"	490	395	295	384	176	460	287	384	292	315	135	223	18,520	19,420	
PXJ-200T/M	2"	1½"	490	395	295	384	176	460	287	384	292	315	135	223	23,420	21,420	
PXJ-300T/M	2"	1½"	490	395	295	384	176	460	287	384	292	315	135	223	24,120	24,420	

Descripton	Code	Pieces	Weight (kg)	Volume(m³)	Price
PUMPEXJ-50M 0,50 HP, Monophase	0111PXJ50M	1	19.12	0.096	336,00 €
PUMPEXJ-75M 0,75 HP, Monophase	0111PXJ75M	1	20.32	0.096	359,00 €
PUMPEXJ-75T 0,75 HP, Triphase	0111PXJ75T	1	19.12	0.096	359,00 €
PUMPEXJ-100M 1 HP, Monophase	0111PXJ100M	1	20.32	0.096	377,00 €
PUMPEXJ-100T 1 HP, Triphase	0111PXJ100T	1	19.12	0.096	377,00 €
PUMPEXJ-150M 1,5 HP, Monophase	0111PXJ150M	1	20.12	0.096	455,00 €
PUMPEXJ-150T 1,5 HP, Triphase	0111PXJ150T	1	21.12	0.096	455,00 €
PUMPEXJ-200M 2 HP, Monophase	0111PXJ200M	1	25.12	0.096	510,00 €
PUMPEXJ-200T 2 HP, Triphase	0111PXJ200T	1	23.12	0.096	486,00 €
PUMPEXJ-300M 3 HP, Monophase	0111PXJ300M	1	26.12	0.096	550,00 €
PUMPEXJ-300T 3 HP, Triphase	0111PXJ300T	1	26.12	0.096	514,00 €



Certifications






TEST REPORT

Job No./Report No. TR 244557 DATE : January 18 2010 Page 1 of 5

GEMAS GEENL MÜHENDİSLİK MEKANİK SAN.VE TİC.A.Ş.

AYAZMA YOLU NO:11 KAĞITHANE

İSTANBUL

TEL:0212 3219230

Fax:0212 2947735

Mail: deniz@gemas.com.tr

For the attention of Deniz hanım

The following sample(s) was/were submitted and identified by/on behalf of the clients as:

Sample Submitted By : GEMAS GEENL MÜHENDİSLİK MEKANİK SAN.VE TİC.A.Ş.

Sample Description : PVC Fittings

Model No : TEE/ Sockets /Elbow 90°

PO No/Ref.No : Not Given

Client : Not Given

End Use : Pool Fitting

Sample Receiving Date : January 10, 2011

Testing Period : January 10, 2011~ January 12, 2011

Service Type : NORMAL

Test Requested : Selected test (s) as requested by client.

Test Method : Please refer to next page(s)

Test Result(s) : Please refer to next page(s)

Conclusion : Based on the performed tests on submitted samples, the result **complies with the RoHS Directive 2002/95/EC and its subsequent amendments.**

The test results relate only to the items tested only. The report shall not be reproduced except in full, without the written approval of the laboratory. Test reports without SGS seal and authorized person signature are invalid. The reported uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS/ISO 17025 requirements. This results do not include uncertainties. Opinions and interpretations expressed herein are outside of the scope of UKAS Accreditation. Tests marked (*) in this Test Report are not included in the UKAS Accreditation Schedule for this Laboratory.

Issued in Istanbul

For and on behalf of

SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş

Serap Morcalı

Lab. Customer Services

Coordinator

Neslihan Erol

Customer Relations Supervisor



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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only."

SGS Supervise Gözetme Etüd Kontrol Servisleri A. Ş.

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www.tr.sgs.com

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Markanın Tanımı Description of the Mark
TSE veya/or  veya/or **T S E**

BELGE NUMARASI REFERENCE NUMBER OF LICENCE	071244-TSE-01/03
BELGENİN İLK VERİLİŞ TARİHİ DATE OF FIRST ISSUE OF LICENCE	28.08.2014
BELGENİN SON GEÇERLİLİK TARİHİ LICENCE VALID UNTIL	28.08.2022
BELGE SAHİBİ KURULUŞUN ADI NAME OF THE LICENCE HOLDER	STAR DERİ TEKSTİL HAVUZ VE BİLİŞİM ÜRÜNLERİ SANAYİ TİCARET
BELGE SAHİBİ KURULUŞUN ADRESİ ADDRESS OF THE LICENCE HOLDER	10001 SOK NO 28 İDARİ BİNA ZEMİN KAT İTOB TEKELİ KÖYÜ MENDERES İZMİR/TÜRKİYE
ÜRETİM YERİ ADI NAME OF THE MANUFACTURING PLACE	STAR DERİ, TEKSTİL, HAVUZ ve BİLİŞİM ÜRÜNLERİ SAN TİC AŞ
ÜRETİM YERİ ADRESİ ADDRESS OF THE MANUFACTURING PLACE	10001 SOK NO 28 İDARİ BİNA ZEMİN KAT İTOB TEKELİ KÖYÜ MENDERES İZMİR / TÜRKİYE
İPTAL EDİLEN BELGE NUMARASI (Varsa) INDICATION OF SUPERSEDED LICENCE (if any)	071244-TSE-01/02
TESCİLLİ TİCARİ MARKASI REGISTERED TRADE MARK	fitvalf
İLGİLİ TÜRK STANDARDI RELATED TURKISH STANDARD	TS EN ISO 1452-3 / 13.12.2011
BELGE KAPSAMI SCOPE OF LICENCE	

PLASTICS PIPING SYSTEMS FOR WATER SUPPLY AND FOR BURIED AND ABOVE-GROUND DRAINAGE AND SEWERAGE UNDER PRESSURE - UNPLASTICIZED POLY (VINYL CHLORIDE) (PVC-U) - FITTINGS

ELASTOMERIC RING SEAL FITTINGS

45° ELBOWS

Size group: 1, 2; Nominal pressure: PN 10; Pipe series: S10; Nominal outside diameter: Ø 50, Ø 63, Ø 75, Ø 90;
Intended use: W/P

Size group: 2; Nominal pressure: PN 10; Pipe series: S12.5; Nominal outside diameter: Ø 110, Ø 125, Ø 140, Ø 160,
Ø 200, Ø 225; Intended use: W/P

90° ELBOWS



e-imzalı/e-signed

03.09.2021

On Behalf Of The Head Of Certification Center
Ahmet NAMLI

Izmir Certification Manager

*This certificate also shows that the production place of the certified product meets the requirements of Institute.

*This certificate under any circumstances cannot be changed, duplicated partially or in a way that makes it difficult to read and erasure cannot be done.

*TSE * Address: 8780/1 sokak No:5 Çiğli / İZMİR * Telephone: 0232 376 24 25(3H) * Fax: 0 232 445 42 32

*TSE HEAD OF CERTIFICATION CENTER Address: Necatibey Cad. No:112 06100 Bakanlıklar/ANKARA – Telephone: 0 312 416 64 81 / 416 64 27, Fax:0 312 416 66 17 E-mail

:bmb@tse.org.tr , web : www.tse.org.tr



Please check the accuracy and validity of the certificate from <https://evrakkontrol.tse.org.tr/BelgeDogrulama.aspx?p=bdopah3g>

1 / 3



Markanın Tanımı Description of the Mark
TSE veya/or  veya/or TSE

BELGE KAPSAMI (071244-TSE-01/03nolu belge devamı) : STAR DERİ TEKSTİL HAVUZ VE BİLİŞİM ÜRÜNLERİ SANAYİ TİCARET
İLGİLİ TÜRK STANDARDI(RELATED TURKISH STANDARD) TS EN ISO 1452-3 / 13.12.2011

Size group: 1, 2; Nominal pressure: PN 10; Pipe series: S10; Nominal outside diameter: Ø 50, Ø 63, Ø 75, Ø 90;
Intended use: W/P
Size group: 2; Nominal pressure: PN 10; Pipe series: S12.5; Nominal outside diameter: Ø 110, Ø 125, Ø 140, Ø 160, Ø 200, Ø 225; Intended use: W/P

TEE
Size group: 1, 2; Nominal pressure: PN 10; Pipe series: S10; Nominal outside diameter: Ø 50, Ø 63, Ø 75, Ø 90 ;
Intended use: W/P
Size group: 2; Nominal pressure: PN 10; Pipe series: S12.5; Nominal outside diameter: Ø 110, Ø 125, Ø 140, Ø 160, Ø 200, Ø 225; Intended use: W/P

FLANGE ADAPTOR
Size group: 2; Nominal pressure: PN 10; Pipe series: S10; Nominal outside diameter: Ø 90; Intended use: W/P
Size group: 2; Nominal pressure: PN 10; Pipe series: S12.5; Nominal outside diameter: Ø 110, Ø 125, Ø 140, Ø 160, Ø 200, Ø 225; Intended use: W/P

FLANGE
Size group: 2; Nominal pressure: PN 10; Pipe series: S10; Nominal outside diameter: Ø 90; Intended use: W/P
Size group: 2; Nominal pressure: PN 10; Pipe series: S12.5; Nominal outside diameter: Ø 110, Ø 125, Ø 140, Ø 160, Ø 200, Ø 225; Intended use: W/P

UNION WITH BOTH SIDES SOCKET
Size group: 1; Nominal pressure: PN 10; Pipe series: S10; Nominal outside diameter: Ø 32, Ø 40, Ø 50, Ø 63;
Intended use: W/P

UNION WITH ONE SIDE EXTERNAL THREADED
Size group: 1; Nominal pressure: PN 10; Pipe series S10; Nominal outside diameter: Ø 50, Ø 63; Intended use: W/P

INTERNAL THREADED ADAPTOR (ACROSS FLATS)
Size group: 1, 2; Nominal pressure: PN 10; Pipe series: S10; Nominal outside diameter: Ø 50, Ø 63, Ø 75, Ø 90;
Intended use: W/P
Size group: 2; Nominal pressure: PN 10, Pipe series: S12.5; Nominal outside diameter: Ø 110; Intended use: W/P

EXTERNAL THREADED ADAPTOR (ACROSS FLATS)
Size group: 1, 2; Nominal pressure: PN 10; Pipe series: S10; Nominal outside diameter: Ø 50, Ø 63, Ø 75, Ø 90;
Intended use: W/P
Size group: 2; Nominal pressure: PN 10; Pipe series: S12.5; Nominal outside diameter: Ø 110; Intended use: W/P

SLEEVE
Size group: 1, 2; Nominal pressure: PN 10; Pipe series: S10; Nominal outside diameter: Ø 50, Ø 63, Ø 75, Ø 90;



e-imzalı/e-signed

03.09.2021

On Behalf Of The Head Of Certification Center
Ahmet NAMLI

Izmir Certification Manager

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2 / 3



Markanın Tanımı Description of the Mark
TSE veya/or  veya/or T S E

BELGE KAPSAMI (071244-TSE-01/03nolu belge devamı) : STAR DERİ TEKSTİL HAVUZ VE BİLİŞİM ÜRÜNLERİ SANAYİ TİCARET İLGİLİ TÜRK STANDARDI(RELATED TURKISH STANDARD) TS EN ISO 1452-3 / 13.12.2011

Intended use: W/P

Size group: 2; Nominal pressure: PN 10; Pipe series: S12.5; Nominal outside diameter: Ø 110, Ø 125, Ø 140, Ø 160; Intended use: W/P

END CAP

Size group: 1, 2; Nominal pressure: PN 10; Pipe series: S10; Nominal outside diameter: Ø 50, Ø 63, Ø 75, Ø 90;

Intended use: W/P

Size group: 2; Nominal pressure: PN 10; Pipe series: S12.5; Nominal outside diameter: Ø 110, Ø 125, Ø 140, Ø 160;

Intended use: W/P

REDUCER

Size group: 1, 2; Nominal pressure: PN 10; Pipe series: S10; Nominal outside diameter: Ø 63-50, Ø 75-50, Ø 75-63, Ø 90-63, Ø 90-75; Intended use: W/P

Size group: 2; Nominal pressure: PN 10; Pipe series: S12.5; Nominal outside diameter: Ø 110-63, Ø 110-75, Ø 110-90, Ø 125-90, Ø 125-110, Ø 140-90, Ø 140-110, Ø 140-125, Ø 160-90, Ø 160-110, Ø 160-140, Ø 200-160, Ø 225-160, Ø 225-200; Intended use: W/P



e-imzalı/e-signed

03.09.2021

On Behalf Of The Head Of Certification Center
Ahmet NAMLI

Izmir Certification Manager

*This certificate also shows that the production place of the certified product meets the requirements of Institute.

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*TSE HEAD OF CERTIFICATION CENTER, Address: Necatibey Cad. No:112 06100 Bakanlıklar/ANKARA – Telephone: 0 312 416 64 81 / 416 64 27, Fax:0 312 416 66 17 E-mail :bmb@tse.org.tr , web : www.tse.org.tr

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3 / 3



T.C.
TÜRK PATENT ENSTİTÜSÜ

MARKA TESCİL BELGESİ

Marka No : 2013 10614 - Ticaret - Hizmet



Marka Sahibi : STAR DERİ TEKSTİL HAVUZ VE BİLİŞİM
ÜRÜNLERİ SANAYİ VE TİCARET ANONİM
ŞİRKETİ
TÜRKİYE CUMHURİYETİ
İTOB ORGANİZE SANAYİ BÖLGESİ 10001 SOKAK
NO:28 TEKELİ MENDERES İZMİR
Emtiası : 17 , 19 , 35
İlişiktir.

Markaların Korunması Hakkında 556 Sayılı Kanun Hükmünde
Kararnameye göre 05/02/2013 tarihinden itibaren ON YIL müddetle
27/12/2013 tarihinde tescil edilmiştir.



Elif B. AKIN
Enstitü Başkanı a.
Markalar Dairesi Başkanı

TÜRK PATENT [●] ENSTİTÜSÜ

 Bundesrepublik Deutschland 

Urkunde

über die Eintragung des
Gebrauchsmusters Nr. 20 2015 105 920

Bezeichnung:

Der als Montagewerkzeug dienender Kurbel für PVC Kugelhähne

IPC:

F16K 5/10

Inhaber/Inhaberin:

STAR DERI TEKSTIL HAVUS VE BIL.ÜRÜN.SAN.TIC.A.Ş., Izmir, TR

Tag der Anmeldung:

05.11.2015

Tag der Eintragung:

07.01.2016

Die Präsidentin des Deutschen Patent- und Markenamts



Cornelia Rudloff-Schäffer

München, 07.01.2016



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Den aktuellen Rechtsstand und Schutzzumfang entnehmen Sie bitte dem DPMAregister unter www.dpma.de.

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ISO 9001 : 2015

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ANONİM ŞİRKETİ**

10001 Sok No:28 İdari Bina Zemin Kat İtob Köyü Menderes İzmir/ TÜRKİYE

Bu sertifika yukarıdaki kuruluşa ait kalite yönetim sisteminin aşağıdaki kapsam çerçevesinde PCA Sertifikasyon tarafından onaylandığını göstermekte olup, sertifikanın geçerliliği kuruluşun yıllık gözetim denetimlerinden geçmesine ve Uluslararası akreditasyon kuralları gereğince ilgili yönetim sisteminin şartlarını devam ettirmesine bağlıdır.

KAPSAM

Pvc, plastik havuz ekipmanları ve bağlantı elemanları imalatı ve satışı

EA KODU

14

Sertifika No : KY-27950
Tescil Tarihi : 15.02.2022
Yeniden Basım Tarihi :
Geçerlilik Tarihi : 14.02.2023
Belge Periyodu : 3 Yıl (Tescil Tarihinden itibaren)
Hariç Tutma : 8.3

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Management
Systems
Certification Body
MSCB-103

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10001 Sok No:28 İdari Bina Zemin Kat İtob Köyü Menderes İzmir/ TURKEY

This certificate shows that the quality management system of the above company was approved by PCA Sertifikasyon for the following scope, the validity of the certificate depends on the company's pass the annual surveillance audits and company's maintenance the related management system conditions according to international accreditation criteria.

SCOPE

Manufacture and sale of pvc, plastic pool equipments and fasteners

EA CODE

14

Certificate No : KY-27950
Registration Date : 15.02.2022
Reissue Date :
Expiry Date : 14.02.2023
Certificate Period : 3 Years (From the date of registration)
Exclusion : 8.3

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Management
Systems
Certification Body
MSCB-103

PCA Certification Approval

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Sertifika

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ANONİM ŞİRKETİ**

10001 Sok No:28 İdari Bina Zemin Kat İtob Köyü Menderes İzmir/ TÜRKİYE

Bu sertifika yukarıdaki kuruluşa ait çevre yönetim sisteminin aşağıdaki kapsam çerçevesinde PCA Sertifikasyon tarafından onaylandığını göstermekte olup, sertifikanın geçerliliği kuruluşun yıllık gözetim denetimlerinden geçmesine ve Uluslararası akreditasyon kuralları gereğince ilgili yönetim sisteminin şartlarını devam ettirmesine bağlıdır.

KAPSAM

Pvc, plastik havuz ekipmanları ve bağlantı elemanları imalatı ve satışı

EA KODU

14

Sertifika No : CY-33614
Tescil Tarihi : 15.02.2022
Yeniden Basım Tarihi :
Geçerlilik Tarihi : 14.02.2023
Belge Periyodu : 3 Yıl (Tescil Tarihinden itibaren)

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MSCB-103

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Certificate

ISO 14001 : 2015

**STAR DERİ TEKSTİL HAVUZ VE
BİLİŞİM ÜRÜNLERİ TİCARET VE
ANONİM ŞİRKETİ**

10001 Sok No:28 İdari Bina Zemin Kat İtob Köyü Menderes İzmir/ TURKEY

This certificate shows that the environmental management system of the above company was approved by PCA Sertifikasyon for the following scope, the validity of the certificate depends on the company's pass the annual surveillance audits and company's maintenance the related management system conditions according to international accreditation criteria.

SCOPE

Manufacture and sale of pvc, plastic pool equipments and fasteners

EA CODE

14

Certificate No : CY-33614
Registration Date : 15.02.2022
Reissue Date :
Expiry Date : 14.02.2023
Certificate Period : 3 Years (From the date of registration)

IAS
ACCREDITED
Management
Systems
Certification Body
MSCB-103

PCA Certification Approval

PCA Sertifikasyon Hizmetleri Limited Şirketi
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Sertifika

ISO 45001 : 2018

**STAR DERİ TEKSTİL HAVUZ VE
BİLİŞİM ÜRÜNLERİ TİCARET VE
ANONİM ŞİRKETİ**

10001 Sok No:28 İdari Bina Zemin Kat İtob Köyü Menderes İzmir/ TÜRKİYE

Bu sertifika yukarıdaki kuruluşa ait iş sağlığı ve güvenliği yönetim sisteminin aşağıdaki kapsam çerçevesinde PCA Sertifikasyon tarafından onaylandığını göstermektedir. Sertifikasyonun geçerliliği kuruluşun yıllık gözetim denetimlerinden geçmesine ve Uluslararası akreditasyon kuralları gereğince ilgili yönetim sisteminin şartlarını devam ettirmesine bağlıdır.

KAPSAM

Pvc, plastik havuz ekipmanları ve bağlantı elemanları imalatı ve satışı

Sertifika No : OH-53180
Tescil Tarihi : 15.02.2022
Yeniden Basım Tarihi :
Geçerlilik Tarihi : 14.02.2023
Belge Periyodu : 3 Yıl (Tescil Tarihinden itibaren)



PCA Sertifikasyon Onayı

PCA Sertifikasyon Hizmetleri Limited Şirketi
Orta Mah. Ordu Sk. İzpark C. Blok No:26/23 Kartal / İSTANBUL
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www.pca-tr.com info@pca-tr.com

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ASSURANCE



Certificate

ISO 45001 : 2018

**STAR DERİ TEKSTİL HAVUZ VE
BİLİŞİM ÜRÜNLERİ TİCARET VE
ANONİM ŞİRKETİ**

10001 Sok No:28 İdari Bina Zemin Kat İtob Köyü Menderes İzmir/TURKEY

This certificate shows that the occupational health and safety management system of the above company was approved by PCA Certification for the following scope, the validity of the certificate depends on the company's pass the annual surveillance audits and company's maintenance the related management system conditions according to international accreditation criteria.

SCOPE

Manufacture and sale of pvc, plastic pool equipments and fasteners

Certificate No : OH-53180
Registration Date : 15.02.2022
Reissue Date :
Expiry Date : 14.02.2023
Certificate Period : 3 Years (From the date of registration)



[Handwritten Signature]

PCA Certification Approval

PCA Sertifikasyon Hizmetleri Limited Şirketi
Orta Mah. Ordu Sk. İzpark C Blok No:26/23 Kartal İSTANBUL
Tel: +90 216 510 63 48-49 Pbx Faks: +90 216 517 63 49
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Reproduction of the mark in color under Rule 9.4(a)(vii)



Registration number **1 233 454**

Registration date **March 21, 2014**

Date next payment due **March 21, 2024**

Name and address of holder **STAR DERİ TEKSTİL HAVUZ VE BİLİŞİM ÜRÜNLERİ SANAYİ VE TİCARET ANONİM ŞİRKETİ
İtob Organize Sanayi Bölgesi 10001, Sokak No:28 Tekeli
Menderes, İzmir (Turkey)**

Legal nature of the holder (legal entity) and place of organization **Joint-Stock Company, Turkey**

Name and address of the representative **Hedef Kurumsal Hizmet Kalite Belgelendirme Marka Patent Danışmanlık Hizmetleri Limited Şirketi, Barış Mh., İkbal Sk., Atalay 10 Sitesi No:13 Kat:6 D:12, Nilüfer/BURSA (Turkey)**

Classification of figurative elements **1.15; 25.1; 29.1**

List of goods and services **17 Rubber, gutta-percha, gum, asbestos, mica and semi-finished synthetic goods made from these materials in the form of powder, bars, panels and foils included in this class; insulation, stopping and sealing materials; joint sealant compounds for joints, gaskets, O-rings for sealing purposes; flexible pipes made from rubber and plastic; hoses made of plastic and rubber, including those used for vehicles; junctions for pipes of plastic and rubber; pipe jackets of plastic and rubber; hoses of textile material; junctions for pipes, not of metal; pipe jackets, not of metal; connecting hose for vehicle radiators.**
19 Sand, gravel, crushed stone, asphalt, bitumen, cement, gypsum for use in construction, road construction, repair and

CERTIFICATE OF REGISTRATION

(continued) 1 233 454

- covering work; building materials (as finished products) made of concrete, gypsum, clay, potters' clay, natural or artificial stone, wood, plastics and synthetic materials for building, construction, road construction purposes, included in this class; non-metallic building materials, non-metallic transportable buildings, poles not of metal, barriers not of metal, doors and windows of wood and synthetic materials; traffic signs not of metal, non-luminous and non-mechanical, for roads; monuments and statuettes of stone, concrete and marble; natural and synthetic surface coatings in the form of panels and sheets, being building materials; heat adhesive synthetic surface coating, being building materials; bitumen cardboard coatings for roofing; bitumen coating for roofing; building glass; prefabricated swimming pools not of metal (structures); aquarium sand.
- 35 The bringing together, for the benefit of others, of a variety of goods, enabling customers to conveniently view and purchase those goods, namely, rubber, gutta-percha, gum, asbestos, mica and goods made from these materials, plastics in extruded form for use in manufacture, packing, stopping and insulating materials, flexible pipes, not of metal, building materials (non-metallic), non-metallic rigid pipes for building, asphalt, pitch and bitumen, non-metallic transportable buildings, monuments, not of metal, such services may be provided by retail stores, wholesale outlets, by means of electronic media or through mail order catalogues.

Basic registration Turkey, 05.02.2013, 2013 10614

Designations under the Madrid Protocol France, Morocco, Poland, Russian Federation

Date of notification 05.02.2015

Language of the international application English



Ásta Valdimarsdóttir
Director, Operations Service
Madrid Registry
Brands and Designs Sector

Geneva, February 5, 2015



INTERNATIONAL REGISTRATION CERTIFICATE

The International Bureau of the World Intellectual Property Organization (WIPO) hereby certifies that the particulars given below correspond to the recording made in the International Register of Industrial Designs, at the date of the international registration, under the Hague Agreement Concerning the International Registration of Industrial Designs.

Registration number **DM/088 552**
Date of the international registration **11.11.2015**
Filing date **11.11.2015**
Name and address of holder **STAR DERİ TEKSTİL HAVUZ
VE BİLİŞİM ÜRÜNLERİ
SANAYİ TİCARET ANONİM ŞİRKETİ
10001 Sokak No:28,
İdari Bina Zeminkat
İtob Tekeli Köyü,
MENDERES/İZMİR (Turkey)**
Contracting Party of which the holder is a national **Turkey**
Contracting Party of which the holder has a domicile **Turkey**
Contracting Party of which the holder has an industrial or commercial establishment **Turkey**
Contracting Party in which the holder has a habitual residence **Turkey**
Applicant's Contracting Party **Turkey**
Name and address of the representative **Hedef Kurumsal Hizmet Kalite
Belgelendirme Marka Patent
Danışmanlık Hizmetleri Limited Şirketi
Barış Mh., İkbal Sk. Atalay 11,
Sitesi No:15 Kat:3 D:7, Nilüfer,
Bursa (Turkey)**
Number of designs included in the international registration **1**
Locarno Classification **Cl. 23-01**
Indication of products **1. PVC spherical valve.**
Contracting Parties designated under the 1999 Act **European Union**

INTERNATIONAL REGISTRATION CERTIFICATE (continued) **DM/088 552**

1.1



1.2



INTERNATIONAL REGISTRATION CERTIFICATE (continued) **DM/088 552**

1.3



A handwritten signature in black ink, appearing to read 'Patrick CARTANT'.

Patrick CARTANT
Head, Operations Service
The Hague Registry
Brands and Designs Sector

Geneva, December 14, 2015



UPVC FITTINGS & VALVES



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